DOCUMENT RESUME

ED 465 434 PS 030 393

AUTHOR	Robinson, Violet B., Ed.
TITLE	Kindergarten Education: Theory, Research, and Practice, 2001-2002.
INSTITUTION	California Kindergarten Association, Roseville.
PUB DATE	2001-00-00
NOTE	124p.; Published biannually. For the 2000 issues, see ED 455 022.
AVAILABLE FROM	California Kindergarten Association, 3013 Douglas Blvd., Suite 132, Roseville, CA 95661-3846 (members, $5; non-members, $8). Tel: 916-780-5331; Fax: 916-780-5330; e-mail: cka@ckanet.org. Web site: http://www.cka.org.
PUB TYPE	Collected Works - Serials (022)
JOURNAL CIT	Kindergarten Education: Theory, Research, and Practice; v6 n1-2 Spr/Sum 2001-Fall/Win 2001-2002
EDRS PRICE	EDRS Price MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	Autism; Cognitive Development; Cross Cultural Studies; *Educational Practices; Family School Relationship; Higher Education; Inclusive Schools; *Kindergarten; Kindergarten Children; Literacy Education; Parent School Relationship; Play; *Preschool Curriculum; Preschool Teachers; Primary Education; Teacher Student Relationship; Theories; Writing Instruction
IDENTIFIERS	Causal Reasoning; Play Learning

ABSTRACT

This document is comprised of the two issues of a biannually published journal featuring research studies, theoretical essays, and classroom practice articles about the development and education of kindergarten children as well as occasional articles concerning preschool and the early primary grades. The Spring/Summer 2001 issue contains the following articles: (1) "Supporting Diverse Voices in Young Children's Texts: Writing as a Space for Children To Play at Naughty and Nice" (Barbara Henderson); (2) "Lessons Learned: A Cross-Cultural Study of Teaching" (Ana M. Serrano); (3) "Last Class Notes" (Lilian G. Katz); and (4) "Shared Enactment: A Meaning-Oriented, Socially Interactive, Skill-Based Approach to Literacy" (Janet Wallace). The Fall/Winter 2001-2002 issue contains the following articles: (1) "Home as Partner: The Shared Connection" (Nancy Lee Cecil); (2) "The Thinking Child: An Interpretational Research Study" (Jackie L. Imbimbo); and (3) "What Do I Need To Know about Including a Young Child with Autism in My Kindergarten Class?" (Steven E. Daley and Maurine Ballard-Rosa). (KB)

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ED 465 434

Kindergarten Education: Theory, Research, and Practice

A Journal of the California Kindergarten Association

v6 n1-2 Spr/Sum 2001-Fall/Win 2001-2002

Violet B. Robinson, Editor

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Kindergarten Education: Theory, Research, and Practice

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Volume 6, No. 1 • Spring/Summer, 2001

A Journal of the California Kindergarten Association

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California Kindergarten Association
3013 Douglas Boulevard, Suite 132
Roseville, CA 95661

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Supporting Diverse Voices in Young Children's Texts: Writing as a Space for Children to Play at Naughty and Nice

Barbara Henderson

This paper argues that facilitating our students to write with voice is the central task in writing instruction. Data for the paper comes from a teacher research study I undertook within my own classroom. I demonstrate that written voice is salient to young children and describe why teachers should support a diversity of voices in children's dictations and early writing. Examples illustrate how children work in playful and complex ways with qualities of written voice. In contrast, there is discussion of how some children struggle. Suggestions for how teachers might organize a classroom to promote strength and diversity in young voices conclude the paper.

> Once upon a time, there was a frog that lived in a coffin at the bottom of a swamp. Now I think you know that this is Frogcula.
>
> Frogcula likes to suck dragonfly's blood. He hates the sun, so midnight is his lunch. He eats everything in the swamp. Frogcula breathes fire...His servants are ghosts.
>
> "It's almost lunchtime," snapped Frogcula. "I hope those ghosts of mine make up my lunch."
>
> Finally when Frogcula thought that he should slap his ghosts, his ghosts brought to him his lunch.
>
> Frogcula said, "Next time don't take so long."
>
> Frogcula had a dragonfly, it tasted delicious, and for dessert he had gut pie. Then he immediately went to his coffin. [...]
>
> — Text written by first grader Ernesto

Voice is important to young authors. It unfolds in performance, making it both delicate and necessary in a text. Therefore, if a text exists and is shared (even if only shared with the self), the text has voice of some kind. Simply put, voice appears with the author's willingness to speak through text. For primary grade teachers, our first and most important task is to support those early attempts at literacy.

I began by quoting from first grader Ernesto's *Frogcula* because he presents an especially complex and controlled voice. He creates a diverse enough range of voices so that adults and children alike find his story engaging and clever. As a teacher, it is easy to accept and support the voices Ernesto brings to the page. Ernesto juggles slapstick with wit, descriptive language with dialogue, popular and peer culture with an eye towards the literary form, all with an ear for vocabulary and variety.

But not all children are so inclined. As teachers we often read texts that exclude us as a primary audience. Not surprisingly, we may feel unimpressed or even displeased with the voices young children adopt. They write about popular culture, their fears, and

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BARBARA HENDERSON is Assistant Professor of Elementary Education at San Francisco State University.

the jokes they find funny. Their voices often seem overpopulated with unappealing, angry, or silly voices. They are drawn to fluff, and violence. Some simply retell fairytales, movie scripts, cartoons, or events from computer games. And if they do write about their lives, they often focus on repetitive scripts of action (we ate, we played, we slept...) that fail to advance plot, define characters, or set a scene. But children who write in these many ways are experimenting with voice as well.

The purpose of this paper is to help teachers understand how to hear voice in children's texts and to see some examples of the complex range of functions written voice serves for children. Secondly, the paper provides suggestions for how to help teachers support young students from a diverse range of cultural and linguistic backgrounds to extend and develop their written voices, especially when — as is so common — popular culture provides children with their source material. Teachers can stretch to appreciate the complex nuances of the voices in popular culture that our students hear and so reproduce in our classrooms. By seeing how children play and work at creating multiple voices for their narrators and their characters, we have a starting point to scaffold the writing process.

Defining Voice

A Definition and a Rubric

Voice is a term used in writing to indicate the power of human speech as represented in text. From my own work with voice, I would describe writing with strong voice as text that feels compelling, authoritative, provocative, and authentic, at least to a specific audience within a specific context. The International Reading Association Literacy Dictionary (Harris & Hodges, 1995) defines voice in this way, "Personal voice in writing: the distinctive way in which the writer expresses ideas with respect to style, form, content, purpose..." (p. 183). Northwest Regional Educational Laboratory (NWREL) presents both an expanded definition of voice and a rubric for assessing voice (2001, April). For NWREL, voice is one of seven traits of writing, which include *ideas, organization, voice, word choice, sentence fluency, conventions*, and *presentation*. The NWREL website includes a webpage that links rubrics and provides definitions for each of the seven traits. They define voice in the following way:

> The Voice is the writer coming through the words, the sense that a real person is speaking to us and cares about the message. It is the heart and soul of the writing, the magic, the wit, the feeling, the life and breath. When the writer is engaged personally with the topic, he/she imparts a personal tone and flavor to the piece that is unmistakably his/hers alone. And it is that individual something–different from the mark of all other writers–that we call voice.

While NWREL's definition is evocative, it also emphasizes the fleeting and idiosyncratic nature of voice. To counter this vagueness, the NWREL writing rubric attempts to specify qualities of voice that a teacher might assess. These rubrics were developed by and for teachers, with support from NWREL, and are based directly on teachers looking at children's writing. The general writing rubric is nondevelopmental and intended for all writers, although a certain degree of fluency is assumed, which makes them more challenging to apply to very young writers. Therefore, one of the most exciting developments for primary grade teachers is that NWREL now also has created a Six-Trait Assessment for Beginning Writers, also available online (2001, April). This assessment tool is useful because it takes into account the efforts of children who are only just beginning to write, where the teacher's job at identifying voice comes more through recognizing hints and being open to small moments of text that reach out to connect.

To summarize some specific elements from NWREL's nondevelopmental rubric, strong voice is described as direct and engaging, while weak voice is indifferent or distanced. To write with voice is to display awareness of speaking to a specific audience, while to lack voice is either to ignore, or wholly misjudge one's audience. Writing with voice shows that the writer is willing to take a risk in a personal way. Writing that lacks voice is dull, "lifeless," or "mechanical." The rubric also describes a middle ground of "reasonably sincere" "earnest" and "pleasant" writing.

In the Beginning Writers assessment, descriptions are more concrete. To begin, there are five levels of development in this model, versus only three in the general rubric. Across these five levels (experimenting, emerging, developing, capable, experienced) voice is described in terms of five categories: (1) presence of emotion, (2) expression of individual difference, (3) awareness of audience, (4) level of energy, and (5) ability to focus on a topic in some manner. At the first level, "experimenting," the rubric suggests teachers look for the intent of voice in the feeling of the line (color, size, shape, etc.) created by the emerging writing. Otherwise at this earliest level, the text does not stand out, the child seems unclear of the task, and it is impossible to see an awareness of audience. Looking across the rubric, descriptions move from "hints" to "moments of [...] sparkle" to "expressive" to "risk taking." Some interesting descriptions are "energy/mood is present," which appears at the emerging level (level 2); "repetition of familiar ideas reduces energy," which appears at the developing level (level 3); and" takes some risks to say more than what is expected" at the experienced level (level 5).

What a rubric like NWREL's can do for teachers is to give us vocabulary for discussing what we see and like in children's writing. Secondly, a rubric gives a flexible and specific way that begins to quantify what we value. Assessment is such a key issue in the current standards-based climate that we need ways to describe, document, and measure what our children are learning, especially when (wisely) we choose open-ended and complex tasks like writing to support our curricular goals. However, what the rest of this paper explores is how we cannot rely on such rubrics or definitions as endpoints in our discussion about voice.

Indeed, rubrics can give us a common language and a set of benchmarks. But we must take care. As the early definitions of voice make clear, voice is an ineffable quality of writing, and perhaps most importantly, it does not hold constant. Each audience creates a certain welcoming (or rejection) for a voice. More specifically, each individual within an audience hears different qualities of voice. Furthermore, each context where a text is shared brings out different tones, so that even the same individual hears something quite different when a text is shared in a place other than where it was created (or intended for).

The overarching reason I am interested in voice (as a teacher of young children, as a teacher of preservice teachers and graduate students, and in my own research, writing, and teaching) is that to hear and support voice (however it may be found) is to support the agency of the author. From my reading, I see a powerful connection between a description of strong voice as "compelling," and educational philosopher Maxine Greene's use of the term "authorship" (1988). That is, a voice becomes strong when it carries the *author*ity to speak and be heard implied by the word *author*. In this way, voice is connected for me with the public discussion about democracy and our willingness to participate in the life of our culture. Children, teachers, all of us need to feel a measure of that authority to even be willing to contribute to the on-going public dialogue, in whatever big or small ways we choose to take part.

What is so tied up in this giving a voice (or the flip side of hearing a voice) are the power relations evident in any exchange. Some people feel more entitlement to be heard and are given more latitude to speak. To take an example, Ernesto, the author of Frogcula, has the kind of voice (literary, funny within bounds of propriety, clever) that allows me to quote him at the start of this paper,and maintain (even build!) my connection with a fairly broad readership. Other children wrote stories during the year of this project that are plenty compelling, but translate so poorly to a broader dominant culture audience, that any subtle message about voice that I am trying to make is totally engulfed by the disturbing power of these raw (and I would say incredibly powerful) voices.

If we become too tied to a rubric, as useful as NWREL's may be, we seem to say we have a single and objective method for measuring voice. However, when an interpretive process (like assessing with a rubric) gets covered over by routine, we begin to forget really how limited and subjective our evaluations are, especially of a quality like voice. Because each of us is necessarily limited by who we are, we need to remain self-conscious and critical. This is especially true when we teach in classrooms that include students from many different ethnic, racial, cultural, and linguistic backgrounds because our limited experience as a single human means we cannot equally know what each of these children intends to bring to the page. To explore one way of seeing the multiplicity in voice, I turn now to the work of M. M. Bakhtin.

Many Voiced-ness — Diversity in Voice:

Bakhtin was a literary theorist born in what is now Lithuania in 1895. He lived and worked in what became the Soviet Union until his death, while living in Moscow, in 1975 (Holquist, 1981). His writing has only recently become widely available in the West, yet has sparked interest across a broad range of scholars including educators. Bakhtin was intensely interested in language, particularly in how language communicates meaning within the lively and specific exchange of an *utterance* passing between two people. Here lies the powerful connection between Bakhtin and a more complete understanding of voice in written language, especially in diverse classrooms. Bakhtin's concept of *heteroglossia* (many voiced-ness) is perhaps one of the most important and most frequently cited elements of his work. Through heteroglossia, Bakhtin (1981) demonstrates how a living language in any historical context holds within itself many forms, registers, and slangs. At the same time, language and the meaning it holds are constrained by the spoken or written forms through which people communicate. In the context of this paper, heteroglossia applies especially well to the question of how teachers can understand and support voice in diverse classrooms where the children's home cultures do not make a perfect match with the home culture of the teacher, yet where the children must learn the forms of communication understood and valued by the dominant culture (Delpit, 1988).

Heteroglossia helps us to appreciate how a living language expands from all facets of a society — from what we might call the high culture of the educated or powerful classes, while at the same time, and often in greater measure from the voices of the regular folks who speak in dialects or other specialized languages. Bakhtin describes how speech differs, for example by region, social class, accent, ideology, and generation. A more complex form of heteroglossia occurs when people engage in the language of parody as they play with differences in registers in a self-conscious manner for humorous effect. Again, with heteroglossia as seen in parody, the connections to our classrooms are evident. The use (and many would say overuse) of irony (visualize those raised eyebrows and quote marks people would indicate in the air as they spoke) and a dark and joking cynicism became common in U.S. popular culture beginning in the 1980s. This trend moved from media that was targeted to adults — such as *Saturday Night Live* and *Spy Magazine* — to eventually cross over to a younger market, perhaps most notably with the first prime time cartoon in a long stretch, *The Simpsons*. Currently, this kind of broadly cynical approach toward our society is common in cartoons for children and youth, from the raunchy *South Park*, to the double entendre of *The Power Puff Girls*. We can also find this kind of parody in children's literature, for example in books by John Sciesza and Lane Smith such as *The Stinky Cheese Man and Other Fairly Stupid Tales* (1992). Children hear these forms and try to reproduce them in their own written work.

Indeed, one of our roles as teachers is to serve as gatekeepers of acceptable or appropriate school story voices. However, our censorship can close children out of the literacy club before they even begin. Educational researchers Heath (1983), Michaels (1986), Dyson (1989, 1993), and Smitherman (1994) all demonstrate how a child's chosen voice for storytelling arises from differences in home culture. Furthermore, popular media strongly influences most children's home culture (Dyson, 1997), so differences in voice arise depending on the kind of media that influence a child's story telling or writing. Children freely borrow their story voices from cartoons, situation comedies, adventure movies, video or computer games, fairy tales, modern children's literature, and the conversational voices that surround them at home (Henderson, 1993). To facilitate an open door to literacy for a diverse range of students, teachers need to be open to these sources that create the heteroglossia within our students' writing.

Seeing voice in this way allows us to see the complexity of what our young students write, and what is there to be heard in their texts. As teachers experience children's work, we focus both on the meaning the child intends to communicate and on the audience response to that meaning. We cannot help but be biased by our own interpretation of the text's meaning, but we must appreciate that what we hear is partial, especially when children's home culture is far different from our own. Written voice expressed in school begins with a real or metaphorical raising of the hand that demonstrates the author has some confidence that she or he has something to say, and that someone trustworthy is listening. Although we as teachers may not immediately understand or appreciate the intent of children's written voices, if we want to help all of our students feel the power of literacy, we need to support a diversity of utterances children reveal in their written voices.

On the other hand, as teachers in culturally and linguistically diverse classrooms, it is important to teach how a well-written text carries a fidelity that can represent the author, at least across similar contexts. One important job a teacher takes on is to help all students meet the often unspoken, though deeply important rules for what kinds of written texts "count" in school. We as teachers need to be critical about our own limited perspectives, but we also need to buckle down and find practical ways to teach a set of skills to support our students in their success with school tasks (Delpit, 1988). Creating a written voice that may be carried across contexts is one such set of skills. The purpose of this paper is bridge the tension between a relativistic orientation that values and is inclusive of diversity and a skills-based approach that recognizes teachers need strategies to scaffold children's written voices to higher levels. The paper demonstrates what children can do with voice and how we can help them do it in ways so that more people will be able to understand what they mean to say.

Data Sources

Setting

This article is part of a larger study (Henderson, 1996) and is based on data collected in my own classroom of first and second grade urban students in the San Francisco Bay Area. The school serves an economically, ethnically, and racially mixed population. Approximately 30% of the school is African American, 30% is European American, 20% is comprised of a variety of Asian and Pacific-Islander groups, and the remaining 10% is Hispanic and other ethnic groups including Arab and East Indian. Children from 35% of the families receive free or reduced cost lunches.

Research Methodology:

I write from the perspective of one of the co-teachers and have adopted a teacher researcher stance (Cochran-Smith & Lytle 1993). The strength of teacher research is that it can explain the activities and intentions of our teaching practices from the inside out. As teachers, we also have an insider's perspective on the activities of our students. The insider stance allows the researcher to make connections between educational theory and practice that are likely to be germane to other teachers. Teacher research is also a kind of deep reflective practice where the quality of the teacher researcher's practice evolves through the activities of data collection, data analysis, and presentation of findings. In the classroom, I worked daily and throughout the school year as a cooperating teacher with Kay[1], the lead teacher who was employed by the school district.

Classroom Procedures

Our language arts curriculum focused around the children writing stories and sharing them with one another. Our expectations and ways of organizing the classroom for writing were based around practices that originated with "Writing Process," or "Writers' Workshop" methods (Graves, 1983; Calkins, 1986). Our writing segment began each day with a "mini-lesson" on some aspect of writing. Lessons included skills of writing that are appropriate for young children (spelling, drafting, and editing). We also taught broader compositional strategies that addressed (1) elements of narrative writing such as characterization, plot, and setting, and (2) elements of basic expository writing such as organizing a central topic and using sub-headings to expand. In our skill-based lessons, we taught strategies for spelling such as recognizing patterns in the English language and the use of word walls and individual dictionaries that stressed grouping phonetically similar word families. We also had some spelling practice based around these same common patterns and favorite sight words (e.g., *from, the, and, what, Once upon*). We taught skills for writing first drafts such as the use of carats to shoehorn in missing text and the judicious use of drawing and talk to rehearse plot, character, and voice with oneself and with friends. We taught procedures for editing such as reading the story out loud to themselves to see if it "made sense" and then reading it aloud to a friend (who, being 6 or 7 years old usually said no more than, "I liked it. You could make it longer," but nonetheless gave the child an additional opportunity to hear her own written voice ring in her head once again). We also spent time teaching ways to create descriptive and poetic language such as the use of simile and metaphor, and "vivid verbs." For further ideas about how to teach writing to young children, I suggest a recent revision of the book that first inspired me, *The Art of Teaching Writing* (Calkins, 1994).

After the 10-20 minute mini-lesson, children wrote for at least thirty minutes each day. They picked up their own work from their writing folders and continued with their stories, each with an individual pace and plan. Finally, we made daily time for a few children to share their work as one of our featured authors at the "author's chair." We also used the children's writing within the classroom for a variety of real and valued purposes. Specifically, children shared in-progress and completed texts with one another; we displayed finished texts in the room; we made these child-authored books available as part of our free choice reading materials (and they were prized), and we sometimes used multiple photocopies of child-authored texts for our reading group material.

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[1] The name of my co-teacher and all students are pseudonyms.

We did not set topics for the children to write about except several times during the year when we had the children working in collaborative groups to write expository pieces based on thematic units from science and social studies. Otherwise children wrote in any genre they chose, although most of our instruction featured literary models that emphasized fictional narrative. Because our children were just learning formal literacy, we were most interested in helping them to develop an enjoyable fluency with their written voice and for them to become self-sufficient as writers.

Building children's autonomy as writers is crucial to the success of a writing workshop with young children. Within the writing period, we emphasized three techniques that we hoped would enhance fluency and independence: (1) use of phonetic spellings, (2) supporting rehearsal of text by permitting drawings and talk among peers, and (3) use of streamlined editing. We encouraged the children to use phonetic spellings to build their independence and facility with encoding, and consequently, decoding written English. Although we expected children to sound out words on their own as much as possible, we would supply spellings and provide other strategies for children uncomfortable with the method. We also taught spelling patterns at another time in the day. Second, we allowed children to talk with one another and to draw as they composed their stories. In this way, children had available at least two supports for planning and rehearsing their writing. At times we set limits on both the talk and the drawing to keep children accountable to the writing task. One common admonition was, "Talk about your writing!" Finally, we minimized the multiple draft editing process usually associated with the writing workshop model. We believed that for children in first and second grade, the fires of inspiration burn most brightly in the creation of a first draft and are quickly lost with rewriting. Although children were encouraged to do some editing of their original draft, we never asked the children to wholly rewrite drafts of the same text. Final editing took place in consultation with an adult as the child's story was typed on the classroom computer.

Naturally, children wrote at differing rates. A few could write a multiple page story every one or two days. Most worked more slowly and such a story would take them on an average of two weeks to complete. A few children worked quite slowly and completed only a single story each month. Overall, a majority of children's handwritten texts were in-class published. In our class, publishing a text meant that an adult (usually me and sometimes a parent helper) would type the story on our computer. Children sometimes indicated where they wanted page breaks, but usually the adults would decide. On average, we put an equivalent of one paragraph per page. We then printed out the story in large attractive fonts, and gave the sheets to the child to illustrate. The final published book was a sheaf of typed and illustrated pages that we stapled together in a file folder, with the title and author written on the front in marker. When the child was done illustrating, we made at least one photocopy so that one book could remain in the classroom while the other could go home with the child.

Data Analysis

For this article, data analysis took place using a grounded theory approach (Glasser & Strauss, 1967). Specifically, my goal was to describe a situated theory of written voice, beginning with the assumption that there was an underlying tension between how Kay and I, the teachers in the class, understood and emphasized voice, and how the children understood and represented voice. To demonstrate this tension, I worked to uncover distinct perspectives in the teaching data and in the student data. The teaching data included planned and enacted lessons, our reactions to students' text, our interactions with students, and my reflections on teaching and learning in the class. The student data included students' talk and texts. The talk took place both in private settings as captured by the tape recorder left on the desks of the focal student as they wrote and in public settings at the author's chair.

Particular examples for how the children enacted voice were drawn from the full class. Working from the categories within my situated theory of voice, I chose exemplars to demonstrate the diversity of ways children played with voice in their texts. For the mini-portraits section, I selected students who demonstrated a range of ability with voice, from those whom I saw struggling to produce text (and thus struggling with voice) to those who were prolific and confident in their writing and sharing of texts (and thus comfortable with voice). To select these children I began with my second grade focal students as I had the most concentrated data on these seven. Then I went beyond the focal students to describe one of our first graders who had a distinct experience with finding a comfortable voice. My intention with the mini-portraits is not to create a weak-strong dichotomy, but to show how all children — even those who struggled in certain ways — have an awareness of voice in their writing.

An Analysis of the Diversity of Children's Written Voices

Naturally, some children struggle with getting their ideas down on paper, while others write with greater ease. When children struggle with trying to write, they also struggle with their voices. In this section, I present a range of voices from our classroom to illustrate some differences in voice and to help deconstruct my own response as teacher to my students' written voices.

A Voice Stuck in a Rut. To begin, I present a story written by Dave, a first grade boy. He was monolingual English speaking and from a European-American family. Here is Dave's story entitled *X-Men Part IIIIIII* that he wrote at the end of February:

> Once upon a time there was a guy named Wolverine, a guy named Punisher, and a Captain America. A bat was firing a gun, and Wolverine was pumping his muscles. And finally Sam was coming when wolverine was going to fight, and wolverine won, as usual.
>
> The end.

Dave was not a child to take risks easily. He had found that the superhero script made a connection with other children who watched the same cartoon. Although this connection did not make a wide splash, Dave had found that some children, especially the other boys, understood his Wolverine stories. At this point in the year, as a teacher I assessed Dave as having some problem with his written voice because the superhero script he had adopted seemed to limit him. With this story it appears that he, too, is finding the script tiresome and repetitive. He reflects an innocent self-awareness of his own predictability by titling his story with what he imagined to be a very high Roman numeral (*Part IIIIIII*), and through the final phrase, "wolverine won, as usual." This kind of story does not so much reveal anything new about Dave's selfhood to the group as it provides a convenient shield — a safe popular culture connection to other boys in the class. As teachers, we did not censor these superhero scripts. Instead we encouraged Dave to continue writing and sharing them as a way to connect with peers he valued. Indeed, just a bit later in the spring, Dave began to use a more diverse set of narrative models drawn from these respected peers. Inspiration from his friends allowed him to continue to play with his favorite superhero script, yet grow his voice in livelier more diverse ways.

Cool Comedy. In contrast, here is the voice of second grader, Bryan. Bryan wrote a story titled *Birdcula* that was Ernesto's inspiration for *Frogcula*. Bryan was an African American boy, who was monolingual English speaking. He most often used standard English in the classroom. Bryan greatly enjoyed reading to the group and getting a good response to his stories. Here is a larger excerpt of *Bus Squad*, which he wrote early in the school year.

> [The junior Dracula] ran away to the human land. He got so scared he fainted. He fainted so hard the whole town heard him. A little one year old girl came and stepped on him.
>
> So he went to school. He told the principal.
>
> The principal said, "I don't know a one year old girl!!!!!!!!!!!"
>
> So he fainted again. [...]
>
> Now Dracula said, "Where's that mean old principal?!"
>
> So he went back to school, and boy was he mad! He got sooooo mad that his ears were burning with fire.
>
> He took that principal, and threw him out the window, and that was the end of that old mean principal.

In this story, Bryan's strength is a playful ease of expression. He was beginning to enjoy using dialogue, and wanted to increase the drama by using large fonts and multiple exclamation points. He reflected this emphasis orally by reading the principal's yelling in a loud dramatic voice. In the typed version, I agreed to include his eleven exclamation marks and a larger font than the regular text, although he wanted a far bigger font than the one we settled upon. He also requested that we print the full text in a scary-looking font, but I rejected this request because I was afraid the children would find it too difficult to read. In these ways, we see that Bryan playfully pushed boundaries in his quest to be dramatic and humorous. Not surprisingly, this story provides an example of a topic (based on cartoon characters) and theme (being naughty) to show how our students wrote with peers in mind as their primary audience.

A Prolific and Ebullient Voice . A student named RJ was a second grade boy whose family had recently immigrated to the U.S. from the Philippines. RJ was a prolific writer and he loved to share his work with the class. Here is the full text of the pro-wrestling inspired, *Room 5 Royal Rumble* that he wrote mid-year:

> Once there was a room, and the room was messy. The boys were rumbling in the room and the teacher came and said, "What's going on here?"
>
> "Um, we're just playing."
>
> "But I saw you rumbling in the room."
>
> And the teacher called to the principal's office.
>
> "Oooh, we're in trouble."
>
> And the boys came to the principal's office.
>
> The principal said, "Now, what's going on here?"
>
> Bryan and Dave said, "We're just playing."
>
> The principal said, "Bryan and Dave, tell me the truth."
>
> Then Bryan and Dave told the truth.
>
> "See, we're just rumbling in the room. And the teacher came and was standing like Hulk Hogan and said, 'What's going on here?' and me and Dave were scared."
>
> The principal said, "So you are rumbling in the room, huh?"
>
> Bryan and Dave said, "Yes, we were rumbling in the room."
>
> The principal said, "Okay, dismissed."
>
> So Bryan and Dave went to the room. Bryan and Dave said, "Look, it's time to go home,"
>
> So Bryan and Dave are rumbling in the house, and their father came and said, "What are you doing Bryan and Dave?"
>
> So their father is standing like Hulk Hogan just like their teacher.
>
> Next morning, Bryan and Dave go to school, and the teacher came and said, "I wish those 2 boys will be better."
>
> The teacher said, "Oh, I forgot my backpack." So the teacher went to her house.
>
> But when the teacher left, they started fighting again, and so they were rumbling in the room again. And the teacher said, "Read a book."
>
> So the 2 boys read a book. And the teacher said, "Ah, I can slip into my chair. So, I can teach them to be nice."

Again, this story is inspired by popular media and peer culture. RJ is playful in creating a range of realistic voices through dialogue. The kids are naughty and repentant in turn; the principal and the father are authoritative. The teacher is firm, but caring. I especially like the two final sentences spoken by the teacher, "Ah, I can slip into my chair. So, I *can* teach them to be nice."

Fun with Dialogue. Tenidra was an African-American second grade girl in our class. Tenidra most often used Standard English in the classroom. Tenidra was shy at the start of the year, yet she came to enjoy greatly the opportunity to perform using the venue of the author's chair. Tenidra also excitedly shared her writing with teachers and peers as she composed her stories. Tenidra was a child who had so many new ideas that she did not always complete her stories, especially once they had been typed and the final version just needed to be illustrated for our class library. Therefore, our library did not contain the full measure of her best stories. Her story *I Love Christmas*, quoted below, was written in December. This story captures the highly personal, funny, and slightly naughty voice Tenidra had begun to develop.

> The Christmas parade is December 5th. Christmas is in four weeks.
>
> "I love Christmas," Keinya said.
>
> "I do not blame you," Ombra said. "It's my favorite holiday, too."
>
> "She took my holiday. She makes me mad!" said Keinya.
>
> "Oh yeah? It's mine too," said Ombra.
>
> "What? What? What? AAAhhhhhhhhhh! AH! AAHHHH!" Keinya yelled.
>
> "I hate you!" said Keinya.
>
> "Me?" said Ombra.
>
> "Yes, you," said Keinya. "What do you think? There's a ghost on the wall?"
>
> "No, I don't," said Ombra.
>
> "Duh!" said Keinya. "There is no such thing as ghosts. I love you."

As *I Love Christmas* demonstrates, Tenidra's stories were strong in capturing the words and rhythm of children's speech. This story probably mirrored an event at her home. Its accuracy to those involved became evident to me when she reported that her sisters got mad when they found themselves portrayed in her schoolwork. Perhaps as a response to her sisters' outrage, Tenidra began writing about fictional characters from this point onward. Her style continued to develop in this personal, wacky, and highly conversational manner. Although Tenidra was a well behaved, rather quiet child, her naughty, sometimes outrageous written voices (ones that I can't quote here) worked well as alternative personae. She had become someone else as an author. As she explained proudly to one of her sisters who visited the classroom at the close of the school year, "I'm famous in here!"

How the Children Used Voice to Serve Many Functions

My data demonstrates that voice was salient to our young students because children played with voice in a variety of ways. What the data also shows is that our students saw voice in different ways than did we, as their teachers. What most interested the children about creating a written voice were two ideas I tagged: (1) *splash value*, and (2) multiple and shifting *personae*. I take each of these ideas in turn.

Splash value describes the children's desire to be noticed among peers when they share their stories. In the interactive environment of the writer's workshop, teachers encourage peer-to-peer interaction through public readings, dramatizations of stories, and peer conferences. For our classroom, we most strongly emphasized the author's chair for public readings. As the children experienced taking center stage at the author's chair, many began to write stories intended to be hilarious or somehow outrageous. This shift was a gradual trend, and some children took to the idea much more readily. Overall, the results were that as children saw that they were writing for an audience of their peers, they were drawn to story content that was zany, ironic, disgusting, naughty, or otherwise unruly because these kinds of stories evoked a strong response.

Not surprisingly, children's fears are often those of the broader culture. A slapstick horror theme was popular in our classroom throughout the year. In a somewhat controlled way, Ernesto plays with splash value in *Frogcula*. He wanted his peers to enjoy his stories, so he made a big splash by choosing child-oriented horror for story content. As you might guess, the line "and for dessert he had blood cake and gut pie" got a big laugh from the children.

Stories with big splash value were often stories that would be defined as "less appropriate" by rubrics such as NWREL's (April, 2001) for assessing children's writing, since being inappropriate was exactly these children's intentions. In our classroom, children began to calculate the splash value of topic, vocabulary, tone, and genre because "splashy" writing drew positive attention from peers. At the same time, a text with high splash value generally drew no strong sanctions from us the teachers. We were committed to the idea of children having autonomy with their writing, at least within a broad range. We did, however, clearly restrict the children from writing in ways that were cruel to others.

The second major element, the multiple and shifting *personae* may seem abstract, but was important to the children nonetheless. Persona and its plural, personae describe how the children consciously assumed new public faces through the vehicle of authorship. Put another way, persona describes how the children were drawn to the idea of authorship because it provided them an opportunity to talk to their peers in new ways. They saw authorship as a role both distinct from and more flexible than ordinary life. Children used the story world as a shield or a playground for alternate selves. They created personae for children who never come to school and may not even exist in any part of a child's life, but serve real purposes for the child in the text world nonetheless.

A shift in narration is one way to play with personae. First the narrator is telling the story, then he or she turns to speak directly to the audience in an aside. A simple example of the aside appears at the start of *Frogcula* when Ernesto turns to the audience to say, "Now I think you know that this is Frogcula." Children also began to shift their distance to the audience by uses of parentheses, as at the start of seven-year-old Bryan's *Bus Squad* where he writes, "Next he joined a baseball league, so the players used Dracula for a bat. (Get it?)" One child, seven-year-old Jennelle, was especially enamoured with parentheses and other kinds of asides in her text, as in this excerpt from her story, *My Dog Before I Was Born:*

> Once there was a man (almost every Sam story starts this way) his name is Jeff. Jeff had a dog. The dog's name is Sam. One day, Jeff and Sam went into a coffee shop (I forgot to tell you where this took place, well it took place in (Jeff was visiting some old friends) in Boston).

Jennelle begins with a standard single parenthesis, then at the close of the first paragraph invents the idea of the double parenthesis. She was quite proud of this invention and showed it off to me just after she wrote it, which was unusual for this child who would save everything until she felt completely finished.

Children also play with multiple voices by creating distinctive voices in dialogue that are so accurate they sound lifted from conversation. One good example of this is displayed in this story written by seven-year-old Dionne:

> Part 1 The Bad Cat and
> Part 2 The Pesky Cat
> Part 1
> The Bad Cat
> "Shut up you cat!"
> "Meow," said the cat.
> "I am going to whip you,
> you pesky old cat, you."
>
> Part 2
> The Pesky Cat
> "Pesky cat, get your behind in bed," I said.
> "I mean it."

What is interesting about Dionne's story is how she is experimenting with the formalism of a chapter book form, even as a simple dialogue makes up the whole story.

For other children, voice shifts as dialogue mingles with narration, as in this rather strange story perhaps appropriately entitled *The Strange Dog* by seven-year-old Lakeysha.

> The Strange Dog and Me, Part 1.
>
> I know a strange dog who likes to eat.
> "I do."
> But sometime you can't eat a lot of things at one time.
> But what you can do is to go to bed.
> I love you
> "I love you too Lakeysha," he said.

The second major way children played with persona was through trying on different masks as author. That is to say, children re-created themselves differently across story genres (e.g., fairy-tales, ordinary life dramas, or zany popular culture inspired stories). In the broadest sense, children play with voice by writing in personae that are distinctly different from their real world selves. Clever children who wish to be good in school can still let their texts play the naughty knave.

Some children like Ernesto, the author of *Frogcula*, create written voices and story content that flows rather easily across boundaries. However, many of the children in our diverse and urban class did not write stories that are so easy to share. In a small way, *That Pesky Cat*, written by seven-year-old Dionne — quoted above — may seem too edgy. Some stories written by our children over the course of that year were funny at the time. But at the distance of these years, and with the contrast between a more general academic setting and the specific context of that classroom, some of these stories now seem wildly inappropriate to most readers. Such stories elicit from adults more questions about children's home life and emotional stability than talk about the story itself.

Indeed, as a teacher I value the clues written voice and story content give into children's home lives, joys, and worries. Yet, at the same time, children also enjoy playing with their fears, perhaps as a way to conquer them. Because such stories bring questions and preconceptions about the identities of these child-authors so clearly to the distant reader's mind, have these "inappropriate" voices succeeded with some element of creating a distinctive and autonomous text? In some way yes, although these children succeed in bringing to mind the counter identity they used their stories to create, not the ordinary, sane, and generally kind personalities who stood before us that year. In the next section, I summarize the strengths of written voice the children created over the year of this study.

Strengths of These Young Voices

Of the stories presented above, some voices appeal to me more than others. To some extent, children who entered school knowing already how to play the literacy game create voices I enjoy more easily. But this is not always the case. Children bloom as writers when they are able to write with vigor and enthusiasm. Over the course of the school year, many of our students gained confidence and became playful with the task. They believed that they had good ideas and came to develop enough fluency that they could capture them on paper.

The voices I most enjoy are all humorous in some manner. Many also all chance naughtiness, suggesting these authors were willing to take risks with how they presented themselves to their peers and to us, their teachers. Indeed I might have chosen a few other students whose voices I enjoyed who would not have portrayed themselves as naughty, yet I find it instructive that across this diverse group, naughtiness is a recurring theme. Is it my own bias, or does creating an active, present, and distinctive voice suggest that children (and all writers) need to break some expectations? Children are most familiar with this experience of feeling power outside of boundaries when they are naughty. Perhaps it is not a bit surprising to see this same tendency in their texts.

What Teachers Can Do to Support Voice, and What to Avoid

Supporting Autonomy

If a kind of naughtiness is a common characteristic of many confident young writers, how do teachers let go enough to let our charges define themselves? How do we respond when we see children creating identities in opposition to the adult world? With most kindergartners and young first graders, children still rely on an adult taking dictation to get their thoughts recorded in print. With these children, providing such freedom is an even more difficult challenge. We need to permit our youngest authors the latitude they need to inspire them to take up writing as another form of play. We can facilitate this by allowing children to rehearse and revisit their stories in interaction with their audience of peers. Here are some suggestions for how to support autonomy through open rehearsal, direct teaching, and teacher attitude:

1) Drawing stories: Encourage children to draw their stories as they wait their turn for dictation.
2) Peer Talk: Allow children to "talk about their writing" with peers as they draw and encode what they can of their stories.
3) Phonetic Spelling: Encourage children to encode as much as they can and in as many ways as possible as they draw and talk together.
4) Oral Sharing: Have children share

their stories orally with the gathered class at an author's circle.

5) Author's Theater: Provide time for author's theater (cf. Dyson, 1993; Paley, 1979) where children can enact their stories using friends as their story characters.
6) Read the children stories written by previous classes of young writers. Use those stories as a springboard to discuss voice. I did this by playing a variety of matching and guessing games to illustrate how each author's set of stories could be recognized as a group, and how these stories told us something about that child, even when the child was not present or known to our students.
7) Question children about passages in their texts that you find unclear or overly elliptical. We regularly asked questions such as, "How would we (or I) know this?" directing the children to a space outside the immediate when the child's obvious answer would be, "Ask me!" We questioned children both individually in informal writing conferences, and if the child was confident, during questions following author's chair readings.
8) Withhold Judgment: Don't be too hasty censoring children. Although not all stories may be suitable for children to read aloud to the group or to publish for the classroom, story writing can provide a forum for a kind of play therapy for children experiencing emotional upheavals of all kinds.

My co-teacher and I had broad success teaching a diverse group of students how to read and write, as well as broad support from the students' parents. We did censor the children on occasion, especially if story content was intended to hurt other children's feelings. Yet we recognized that our students were writing for each other in a context that appreciated when they were just playing at being naughty. This question of knowing when and how to censor children is one we all deal with. Depending on grade level, the specifics will differ, yet children always push boundaries. We must recall that an inclusive community is not a community of uniformity, nor one without strife. Instead, strong and diverse communities form through negotiation of perspectives. Taking on the negotiation of what we permit as story content is just one demonstration of our strength and vision as teachers. We know that children grow in ways that fall beyond narrow guidelines or pat predictions.

Teaching Skills for Writing, Dos and Don'ts

Voice springs from the heart and flows from the convictions of the author. In this way, strength of voice is untutored (Macrorie, 1970). At the same time, children need instruction and support to master the skills of written language. How do we facilitate our young writers to write with voices that the children themselves find compelling? I begin my answer by describing some common mistakes I have made myself or observed in colleagues:

1) Don't set contrived topics for writing assignments. At the same time, teachers find they need to set some kind of parameters about what to write, or students don't know where to begin. Some teachers use a journal format to encourage writing about life. Some go farther and create open-ended personal prompts to

encourage more specificity of expression. In my own teaching, I have most enjoyed using the narrative as a framework. I find the narrative genre to be broader in reach than the journal format. Fictional and real life stories exist in every child's life, yet the freedom of fiction lets many children write about issues they would not raise in a personal journal written in the school setting.

2) Don't let writing be an add-on to your language arts program. Using the writing process model (e.g., Graves, 1983, Calkins, 1986), have children write at their own pace, and share their writing daily.
3) Don't adhere slavishly to the writing process steps of editing and rewriting, especially for these youngest writers. Revision is a sophisticated task of fine-tuning that falls beyond the understanding of most kindergarten through second graders. Streamline your editing process so that conventionally spelled and punctuated texts are created in collaboration with an adult or upper grade student.
4) Don't avoid teaching skills students need to master the symbol system. Teachers need to teach the skills of handwriting, spelling, as well as punctuation and word processing to a lesser degree. Teach these skills systematically, yet always set in a context that allows writing to serve real purposes.

Listening for Voice

There are also some things teachers can do to support voice in all its nuances and complexities:

1) Be aware of subtle shifts in voice within and between stories. What do these shifts reveal in terms of what the child is trying to communicate, whom she or he means to connect with, and what this says about the child's developing sense of self?
2) Accept inspiration for writing from a wide variety of sources. The literary standard is not the only measure of quality. Provide models created both by adults and children across media sources. Make your classroom permeable to popular culture (Dyson, 1993). Let children bring in characters, ideas, vocabulary, and genres from the popular culture that surrounds them outside of school.
3) Research the sources your students draw upon in their writing. Learn to appreciate the nuances of these alternative styles so you can help children hone the strengths of all of the styles they are sampling. As teachers, we are familiar with literary references, but we should also be familiar with the elements of popular and peer culture that children reference so heavily in their writing. Understanding source material allows us to bring the best of these media into our teaching and makes the connection between community and school in ways that honor the diversity of our students' experiences.
4) Expect complexity and multiplicity in voice, even from dictation and early writing of young children. Although not all of the complexity you will see is intentional in young children's work, it still has something to tell us about ourselves as teachers, our local and broader cultural contexts, and about the chil-

dren themselves and how they perceive their role in society.

Why Primary Grade Teachers Should Support Voice

I have always had trouble choosing students who display "weak" voices. That is why I appreciate what the NWREL rubric has done, but also treat it with some caution. In all of my young students, I see ways that they were developing a written voice on their own terms. In the context of our classroom, writing was serving the important function of providing a way to connect with peers and be a part of the social fabric. If a text exists, then it serves some purpose; it holds some constellation of voices that say something about the child within that moment of development, set within the context of our classrooms and their larger lives in and out of school. Providing a teaching environment that helps each child grow begins with this noticing and knowing that the child intends some meaning, some wish to connect.

In conclusion, for primary grade teachers there are three important components that explain why voice is important.

1) If teachers know what voice is, we are better able to hear it in children's texts and see the many functions it serves.
2) If teachers realize that young children are aware of voice, and expect to see children playing with voice — much as children play with character and plot — we will be better able to scaffold our students' learning about voice.
3) If teachers don't hear the diversity of how written voice is expressed in our classrooms, we won't be able to support some of the children who most need teachers' support to become powerfully literate members of our democratic society.

In my experience, writing workshop is not to be missed. Writing is joyful and wonderfully easy to teach in primary-aged classrooms. The children are powerfully motivated to return to and complete their work. Children learn a full range of literacy skills, all set in meaningful and highly individualized contexts. Furthermore, the class is provided with a wealth of fresh and highly valued reading materials that, not coincidentally, match precisely with our class's pleasure reading level. Writing also provides a way for us to come to know each of our students in a personal and in-depth manner not possible through oral modes alone. It is as though we have been granted multiple open-ended interviews with each student where, often, the child reveals something new to us. Finally, through these shared texts the other children in the class come to know both themselves and each other in deeply significant ways. These texts become part of our life and memory as a community of authors.

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Kindergarten Education: Theory, Research, and Practice
Vol. 6, No. 1, Spring/Summer, 2001 – pp. 23-34

Lessons Learned: A Cross-Cultural Study of Teaching

Ana M. Serrano

Alternative methods of teaching that improve instruction can be gained from cross-cultural information about theory, content, and pedagogy. I was part of an elementary school group that studied Japanese teachers' method of teaching mathematics. This article describes what we learned about an alternative method of instruction, which we viewed on video tape. Included are excerpts from a second grade mathematics lesson.

Learning how to improve one's teaching is a continuous process. Cross-cultural information about theory, contents, and pedagogy can provide methods that improve the teaching-learning process. Japanese teachers method of mathematics instruction offers us an opportunity for alternative ways of teaching. This article describes their method of teaching mathematics.

In 1993,while teaching a 5th/6th Grade combination class, I was a member of a Lesson Study group organized and directed by Jim Stigler and Clea Fernandez (herein referred to as researchers). The group consisted of a teacher representative from each grade level (k-6), a school administrator, and the researchers. The researchers expressed interest in how teachers utilized cross-cultural videotaped mathematics lessons to further their own understandings of teaching-learning processes, and the applicability of Lesson Study in the United States. Lesson Study is a problem-solving process used by Japanese teachers for professional development. This process facilitates systematic examination of teaching-learning processes through the actual planning, observation, and reflection of teaching practices. Teachers, in grade-level groups, begin by defining a problem that is of interest to the study group and which will lead to some new understanding about teaching, selected content, and student learning. The selected problem becomes the goal that will guide the group's investigation. The group collaboratively plans a lesson that will be taught by one of the teachers. Group members observe the lesson, and later the group meets to evaluate and reflect on the lesson. It is possible that the group decides to modify the lesson and have another teacher teach the revised version, repeating the evaluation-reflection process. The final step in Lesson Study is to share findings with colleagues. Lesson Study is continuous and is situated in the school within the context of individual classrooms. The benefit of Lesson Study for professional development, according to Stigler and Hiebert (1999), is that,

> "If you start with lessons, the problem of how to apply research findings in the classroom disappears. The improvements are devised within the classroom in the first place. The challenge now becomes that of identifying the kinds of changes that will

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ANA M. SERRANO is Assistant Professor of Elementary Education at California State University, Northridge.

> improve student learning in the classroom and, once the changes are identified, of sharing this knowledge with other teachers who face similar problems, or share similar goals, in the classroom. (p. 111)

Thus, the power of Lesson Study is that it facilitates teachers' contribution to the field and to their own professional development (Stigler & Hiebert, 1999). That is, when teachers are able to contribute to the field of education, they are simultaneously developing their professional understandings.

Our Lesson Study group focused on two concurrent activities: (1. learning alternative ways of teaching by observing Japanese lessons, and (2. implementing the Lesson Study research process. This paper is concerned with our first activity and documents what we discovered about Japanese teachers' philosophy and what we learned about their structure of mathematics lessons. The Japanese system of teaching mathematics afforded the opportunity to distinguish salient features in the Japanese methods and to identify key aspects inherent in our own teaching practices. We were able to reflect on the ideology that supports the instructional practices implemented in the lessons and the effectiveness of these practices to advance students mathematical understanding and the teacher's knowledge of students' understanding (Nagasaki & Becker, 1993; Serrano, 1996). The group's reflective process was enhanced by systematic observation of alternative instructional practices that created opportunities for discussion of pedagogy, content, and the participation structures evidenced in Japanese classrooms. At no time was our objective to become Japanese teachers; instead, we were searching for greater understanding of teaching and learning mathematics in elementary classrooms in the hopes of improving our own practice.

On our first meeting we watched a U.S. mathematics lesson, which was followed by a lively discussion about what we perceived worked well and what we would change or do differently. During the second meeting the researchers showed a Japanese lesson. As we watched we could see the visible external features of a classroom setting: desks, chairs, chalkboard, bulletin boards, teacher, students, but, somehow, the presentation of the content, the structure of the lesson, and the roles of the participants were quite different from what we were accustomed. The Japanese lesson presented alternative ways of teaching that prompted our decision to place greater emphasis on the analysis of Japanese teaching methods. Thus, we wanted to know everything we could about planning, content, student expectations, teaching philosophy, and all other important details of Japanese lessons. We could immediately see the potential for planning lessons that could help students gain a deep understanding of mathematical concepts.

In addition to observing video data, our quest for information led to inquiry into textbooks, curriculum guides, and educational philosophy that inform schooling in Japan. We gathered information from the videos, from numerous visitors from Japan, and from U.S. researchers who studied the Japanese system of teaching. I will present the gathered information by discussing guiding principles and beliefs for teaching in Japan and highlight some of the significant elements that characterize lessons using a second-grade Japanese mathematics lesson as a representative example

Japanese Teachers' Philosophy

There are several overarching beliefs that directly inform life in Japanese classrooms. To begin, Japanese teachers consider differences in ability, "noryokusa," to be related to hard work and effort and not as innate abilities. They believe that perseverance and hard work result in favorable outcomes (Stevenson & Stigler, 1992). In fact, according to LaTendre (1998), "ability differences was among the most 'politically incorrect' term in Japan" (p. 80), as teachers regarded such views as an indication of discrimination. Ability is believed to be accumulated over a long period of time, and, thus, it is presumed that heterogeneous groupings facilitate learning (Stevenson & Stigler, 1992).

Another important belief that teachers bring to bear on instruction is the idea of "Issei," which means "teaching to everyone." The notion of ability being cumulative, combined with the idea of "Issei," provide strong reasoning for teachers to be attentive to students needs, especially since students are not grouped by ability for most of their schooling. Students are eventually tracked into a vocational or regular high school in the tenth-grade, but as a result of nine years experience in heterogeneous classes throughout their educational career, students are exposed to high educational standards. Japanese teacher's lesson methodology has a strong basis on their overarching ideology of ability and equal access.

Japanese teachers accomplish a dynamic participation structure for learning, as they plan lessons by implementing the following basic idea: Hatsumon (the big problem), shitsumon (questioning students' ways of thinking), and kikanjunshi (monitoring students). As teachers plan lessons they begin with the idea of "hatsumon," meaning to caste issues for inquiry for students to ponder. "Hatsumon," which generally represents the big problem posed to students is differentiated from "shitsumon," which refers to asking specific questions to students as they are problem solving. Differentiation between these two kinds of questions predisposes teachers, when planning, to generate one big mathematical question for students and other questions to find out what and how students are thinking in regards to the big question, that is, the problem.

A third concept, critical to recognizing the opportunities teachers create for understanding students ways of thinking, is that of the "teacher walking between desks" (kikanjunshi) during students' independent problem solving activity. When directly translated "kikanjunshi" means: ki = desks, kan = in between, and junshi = supervise. Therefore, when students are working on the big question, i.e., "hatsumon," teachers are walking in between the desks and supervising them by observing and asking "shitsumon" type questions. It is during the practice of "kikanjunshi" that teachers create multiple opportunities to assess students' ways of thinking and their understanding of the mathematical problem[1]. Teachers use the information gathered to assess students, to select who will present their

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[1] Information gathered from informal talks with a Japanese educator, Takako Kawanaka.

solution method, and to plan subsequent lesson segments.

What is important to note from the aforementioned descriptions is that Japanese teachers have built a language of practice and ideology that organizes the way they conceive, plan, and implement lessons. In particular, this language facilitates how teachers begin thinking about their lesson plan in terms of posing a "hatsumon" to guide students' thinking during instructional activities, and of "shitsumon" to find out students' ways of thinking during independent problem solving. This is a powerful ideology that shapes, in very positive ways, the nature of practice.

Although we did not learn this background information at the beginning of our group meetings, we certainly came to question the practices we were exposed to as we watched the lessons. During our first observation we were surprised to find that Japanese teachers did not show students how to solve problems before they were sent to work independently. Instead, the teacher reviewed major points from the previous lesson and then immediately presented a novel problem for students to solve on their own. Because students were instructed to work independently on the problem, we expected students to raise their hands and ask a lot of questions, but the students were concentrating on their work and rarely requested assistance from the teacher who was monitoring them by walking between their desks. When the students did request assistance, we expected the teacher to tell the student how to solve the problem, but the teacher generally asked the student some questions about her ideas and in some cases provided hints or clarified the problem. There were instances in which the teacher questions appeared to serve as a hint. After what seemed to be a long time working on one problem, a few students were independently called to present their solutions. The presentations generated collective discussions about the different ways of solving the presented problem, and, at the end of the lesson, the students suggested the learning for the day, which the teacher wrote on the board and framed it in a large rectangle marked with a different color chalk. The concept was thus generated as a result of in-depth thinking and discussion of one problem during the forty-five to fifty minute lesson. Each lesson observed followed a similar interactive script, which was consistent with their philosophy.

How Philosophy Informs Mathematics Lessons

Japanese teachers' philosophy informs teachers' planning and the implementation in three distinct ways: posing open-ended problems, allowing time for students to work on problems, and setting the stage for students to discuss their ideas and ways of solving the presented problem(s). Regardless of the grade level we taught, the Japanese teachers' methods informed each group member and prompted each participant to reflect on our lessons and on the purpose of lessons in general. To describe how teachers utilize the ideas of "hatsumon, shitsumon, and kikunjishu" during the course of instruction, I have selected a typical second grade lesson[2] which will illustrate more precisely the events in a lesson.

The lesson begins when the bell rings and a student monitor announces:

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[2] This lesson is selected from an NSF data set collected by H. Stevenson and J. Stigler that consists of 90 Japanese and 90 US mathematics lessons at the second, third, and fifth grade levels.

"We will now begin the third hour of study. Bow!" Immediately after the greeting, the teacher passes out eight pieces of papers, each depicting a different geometric shape. Once students have the eight sheets of paper spread out on the desk, the teacher is ready to pose the big problem (hatsumon) to students: "Now please separate them into different families." Here, the teacher presents the situation (the shapes) and the task (what they are to do with the shapes: "separate into different families"). Some of the students moan almost in disbelief of the task ahead of them, but they immediately begin to work.

As we observed we were very surprised that the teacher did not present a method for solving the problem. We realized that students were expected to struggle with the problem so that they could make some sense of it. Our comments were centered on how our students might respond to being posed a problem without a procedure for solving. As the lesson progressed, students got right down to independent work and could be seen trying hard to make sense of the problem. We could see that students understood their task as making sense of the presented problem and that the teacher's reluctance to evaluate and provide specific feedback appeared to convey to students that they were responsible and capable of deciding if things made sense.

Students Work Independently on Solving the Presented Problems

As students manipulate the shapes, the teacher circulates between desks (kikanjinshu) to observe students' thinking, reflexivity, and persistence during their problem solving. This practice provides the teacher with opportunities to assess where students are and to assist, where necessary. Although this lesson did not have the discourse for the one-to-one interactions between teacher and individual students, it is common for teachers to assist students by asking them questions and then possibly by giving them a hint, a clarification, or by setting up a new task. We did not observe teachers working the problem or providing specific feedback to students; students were always the problem solvers. In fact, we never saw a Japanese teacher take a student's pencil and work the problem for a student, something we often saw in the US seatwork segments and that were familiar from our own experience. Because Japanese students were assigned only one problem for which they were expected to come up with a possible solution, specific assistance would defeat the purpose of the assignment and possibly diminish students' ability to provide explanations during the sharing lesson segments.

Teachers utilize students' independent problem solving to plan successful sharing segments that build on previous mathematical concepts and create transitions for new ones. They take notes on students' methods for solving during seatwork to coordinate the sharing of the solutions. There is considerable amount of evidence that the way teachers use the gathered information functions as a resource to decide on the order of student presentations during sharing segments. This is significant because these practices indicate how students' ways of thinking become a resource and source of mathematical information in classrooms (Stone, 1996).

After observations and interactions with individual students, the teacher selects several students who will give a presentation of the strategies they used to solve the problem. This teacher process of walking between desks to gather information on students' understanding seemed rather simple, but during our first attempt to implement a similar type of lesson, we quickly found that we needed specific information in order to know what the students were understanding; it was difficult to decide which students and in what order would be called to present. In our lesson, it took four teachers huddled in a corner over five minutes to make the important decision of the solutions to select and the order in which students would present. Later, we learned that Japanese teachers compile a list of possible student responses that are categorized from least to most logical. This method gives teachers a quick guide of the background knowledge students bring to the problem and how to select the methods and their order of presentation for the sharing segments of the lesson.

In the following section, a description of several student presentations will be highlighted, along with evidence that shows how the teacher utilizes the complexity of solutions to guide the lesson and to build more complex mathematical understanding for students.

Students Share Their Solution Methods

A close examination of student presentations can illustrate the extent to which students' solutions are used as a resource for learning within the classroom context. Not only do these presentations represent the opportunities teachers created for assessing students during seatwork segments, the presentations also represent new assessment opportunities that arise during students' more in-depth explanations of their solution methods.

Sharing the results of the independent work provides opportunities for individual students to reflect on their methods for solving in whole class discussions. During the process of discussing the solution methods, students have access to different opinions, to alternative solution methods, and to different forms of reasoning that can positively affect their mathematical understanding. The following example shows three alternative solution methods that students generated from the task.

Student Solution 1 (SS1)

Student Solution 2 (SS2)

Student Solution 3 (SS3)

The first student goes to the board and arranges the large cutout shapes to indicate the families he made to accomplish the presented task (i.e., "separate the shapes into families"). The teacher asks how many students solved the problem the same way and selects another to present who solved it differently. There were three solutions for the presented problem in this lesson. Next, the teacher worked to get students to provide reasoning for their categorization method because, according to him, they "can't have three different ways of grouping them." The following discourse illustrates the skill teachers use to help students provide warrants for their solution methods:

T Now, Masanori-kun, could you please tell us why you separated them that way? (SS3) 1

S I just thought that way would be a good way to separate them. 2

T He just thought that way would be a good way to separate them. O.K. Let's take a look at Akiko-san's. (SS2) 3

Although the teacher asks the student to provide reasons for his categories (SS3), the student does not give much of an explanation. At this point, instead of persisting in requiring an explanation, the teacher decides to accept the student's claim and ask about the reasoning for the second solution. Similar to the previous answer, the second student states, "The shapes are similar." Unable to receive an explanation, the teacher requests that another student come up to the board and explain her reasoning for SS2. The second student suggests that one group included "long quadrilaterals or something like that," a second group "is just a regular square," the third group "just seem to look a lot alike," and the fourth group "if you flip this one over and compare them, they look alike too." At this point, the students are using descriptions of shape characteristics as a system to categorize shapes into families, but the teacher is searching for reasoning that includes mathematical concepts. The teacher persists and asks, "Is there anyone who can explain why the shapes are divided this way?" in reference to student solution 1, which includes two categories. A student stands up and proceeds to the blackboard:

S These over here are not all squares, but they are also not irregular in shape. They are all regular, so they are all in the same group. These over here are all irregular in shape so they are in the same group.

T So, these are in a group because they are all regularly shaped quadrilaterals, and these are in a group because they are irregularly shaped quadrilaterals. Right?

S (The student nods yes)

T What does it mean that these on the left hand side are all regular quadrilaterals?

S These are all regular because the sides aren't slanted and crooked.

T What do you mean?

S (The student looks at the board without answering and the teacher begins to address the class)

T There are two groups. The one on the left is made up of regular

quadrilaterals. The one on the 24
right is made up of irregular 25
quadrilaterals. What does it 26
mean the shape is a regular 27
quadrilateral? (The student 28
returns to her seat) 29

T What can you use to check that 30
it is a quadrilateral? 31

S I used a triangle. 32

T What should you measure with 33
it? What should you measure 34
using a triangle measure? 35

(After a number of attempts to 36
get a response, one student goes 37
up to the front of the class with 38
a triangle measure.) 39

S You measure the corner of the 40
regular quadrilateral. You use 41
your triangle measure to 42
measure the corner. 43

T How? Show us. 44
(The student fits the triangle 45
measure along the corner 46
of the shape.) 47

This sharing segment illustrates the importance placed on hard work and effort (noryokusa) as students are asked to think and explain their ideas. Although toward the end of the interaction (line 30, 31, 33, 34, and 35) the teacher resorts to more single answer type questions, probably in hope to harness the concept of the day, the majority of the questions posed to students were open-ended. Open-ended questions require students to give reasons for their decisions. For example, it was not enough for the student to say, "These are all regular because the sides aren't slanted and crooked," because the teacher proceeded by asking the student to define what slanted and crooked meant (line 18). In this segment, the teacher tries to construct mathematical concepts with the collective understanding of individual students. Of great interest is the lack of teacher provided facts and information, the skill by which the teacher inquires about what students understand, and how the teacher weaves together their proposed ideas. Asking students questions about their ways of solving indicates a dynamic system for gathering information about students' understanding and for responding to students' cognitive needs during the learning process (Campione, Brown, and Connell, 1988; Serrano, 1996; Vygotsky, 1978).

It was evident that the focus of students' problem-solving activities was not on answers, but on process. It was surprising that students were continually asked to justify their answers or methods and that the whole class was involved in the collective discussion. We observed that children were given time to think and that silence was an integral part of the lesson, as children took time to think before they responded to questions.

For second graders who are beginning to make sense of mathematics, co-constructing explanations assist in socializing them to the importance of providing reasons for their thinking and decisions. The early socialization for explanations builds the capacity for students to reason through their individual methods for solving in a collaborative forum to maximize learning (Stone & Serrano, unpublished). As will be evidenced in the next lesson section, the persistency of the teacher to require students to explain their reasoning helps build a platform for understanding broader mathematical concepts.

The Big Idea

Each problem-solving episode typically ends when the concept to be learned is identified. In this lesson segment, the sharing naturally leads to the concept the teacher wanted students to gather about shapes. In the following discourse segment, the teacher reformulates students' responses into the big idea behind the problem-solving episode:

T If you take the triangle measure 1
and match it up with the corners 2
of the regular quadrilaterals, we 3
find they have corners that 4
are all what? 5

S (The student shrugs and does 6
not answer) 7

T According to Miyuki-san, since 8
the triangle measure perfectly 9
matches with the corner of this 10
shape, then this is not crooked 11
and she's forgotten what we call 12
this type of corner. This is a 13
what angle? 14

Ss A right angle 15
A right triangle 16

T It's a right angle, isn't it? 17

T So, all regular quadrilaterals 18
have corners which are 19
right angles. 20

The mathematical principle (lines 18, 19, and 20) stated by the teacher represents part of the knowledge students need to understand the properties of "regular quadrilaterals". At this point of the lesson, the teacher has students place the right triangle on each corner of each shape, and students find that "regular quadrilateral" shapes have four right angles, but the "irregular quadrilaterals" do not have "four right angles." The teacher guides students through each of the presented solutions and uses the concept of right angles to determine the categorization system. As students involve themselves in this activity, they come to a consensus that solution 1 follows the most logical categorization system.

The lesson continues as the teacher then has students create "regular quadrilaterals" using sticks and has them look for characteristics of the shapes: parallel sides, four right angles. As a result of more collaborative discussions, the teacher concludes the lesson by stating: "Today, we studied that a rectangle is a figure that has four right angles and has parallel sides that are the same in length." Students will have an opportunity to study what they called the "irregular quadrilaterals" in the next lesson.

The problem-solving activities presented to students follow the ideology of "teaching to everyone" (Issei), especially when teachers have between 35 to 40 students of differing ability levels in the same classroom. By allowing students to come up with their own ideas and then share and discuss their generated ideas over the course of the lesson, reflecting, trying out alternatives, and questioning, each student has an opportunity to construct some mathematical understanding. Inquiry and collaboration are sustained throughout the lesson as a result of teachers' philosophy and strategic planning.

Discussion

The focus of the Japanese lessons was the students. Teachers set up problems and observed students' thinking and understanding by looking at their work and asking them questions in order to build in-depth knowledge of the mathematical content. It was rare to find a teacher answer her own question unless it was far into the lesson and no one else understood. Apparently, after the goal of a lesson is decided, the most important part of planning is selecting an appropriate problem that requires students to use prior knowledge in new situations and demands much thinking. When the problem is selected, the teacher begins to compile possible student responses. Knowing the responses helps teachers categorize solutions and plan for sharing segments.

The currency of using students solution methods as the centerpiece for building concepts and understanding is emphasized by the number of lessons in which the presentation of student-generated alternative solution methods were included in sharing activities. In the Japanese lessons we observed, teachers requested students to present alternative solutions methods during sharing segments, and these presentations were utilized in productive ways to discuss and discover mathematical concepts.

The exigencies on students for sharing solution methods are that they take responsibility for their own learning. Polya (1981) refers to this as "active learning" as he describes the roles of the classroom participants:

> What the teacher says in the classroom is not unimportant, but what the students think is a thousand times more important. The ideas should be born in the students' mind and the teacher should act only as midwife [facilitator]. (p. 104)

The pedagogy and planning by the Japanese teachers afford students the opportunity to talk about their mathematical ideas and share various perspectives; at the same time, the diversity of student thinking can lead to assistance at multiple levels within the individual's zone of proximal development (Vygotsky, 1978). The information, gathered through this process, allows the teacher to guide the individual's understanding. In addition, the teacher can modify the lesson depending on the collective nature of the knowledge presented. Schoenfeld (1988) suggests that "the efficient monitoring and assessing of a line of reasoning as it evolves would improve that line of reasoning" (p367). Further, incorporating students' reasoning as an integral part of the collective activity of sharing the seatwork situates reasoning at the center of understanding. As the student presents, the teacher and the class members have access to the student's way of thinking. Moreover, the teacher utilizes the students' solution as the springboard for building understanding of mathematical concepts. In general, the teacher creates opportunities to assess, and this information is utilized to assist students' in their mathematical understanding.

As the representative lesson indicates, Japanese teachers design inquiry lessons that place students at the center of learning. Further, during the lesson, the teacher is dependent on students' ways of knowing to proceed in the lesson events. In order to maintain a teacher-student learning balance, there appear to be a multidirectional learning process where students may learn from the information provided by the teacher or other classmates and the teacher also gains pertinent knowledge about students' thinking in order to assist their learning.

Conclusion

How other cultures go about teaching lessons to young children provides opportunities to look at alternative systems of practice. An added benefit of cross-cultural observations and research is that it can reveal insights into one's own familiar cultural systems that might ordinarily go unnoticed.

We were able to see in the Japanese lessons the implementation of ideas proposed by the 1991 NCTM standards. For example, mathematics reform called for an increase in problem-solving activities, including opportunities for students to talk about their solution strategies—elements found in the sample lesson. Authentic assessment was also observed and served as an integral lesson component as the teacher needed students' ways of knowing in order to proceed to consequent lesson segments. Japanese lessons exemplified a coherence and flow that we had not previously observed, implemented or even considered.

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Kindergarten Education: Theory, Research, and Practice
Vol. 6, No. 1, Spring/Summer, 2001 – pp. 35-39

Last Class Notes

Lilian G. Katz

During my 31 years at the University of Illinois, I taught a graduate course titled Early Childhood Curriculum Trends and Issues. The students, all of whom were in Master's degree programs, worked with preschool, kindergarten, and early primary school children. The course topics included studies of various curricula, approaches in the field, and examination of research comparing various curricula. The course also included discussion of the role of play in all aspects of development, the distinctions between parenting and teaching, and the role of teachers in the development of young children's social competence.

I have always thought that an important part of pedagogy at any level is to engage learners in a de-briefing or summarizing process about what had been offered in the course. In every class I asked students to write a final reaction paper in which they indicated what was useful and mattered to them, considering their own unique backgrounds; what readings were more or less useful; and what they would recommend for future courses. At the last meeting of the class, I also evaluated the semester in terms of what I thought we had examined well and what changes I might make in the future. The list of points reported below began when I decided to have a sort of "last word or two" about what I was then thinking as important principles for teachers to remember as they work with young children. These points are about *being* teachers of young children and are intended to be reminders of what matters in this important work.

We have lingered over many topics concerning children, parents, teachers and curriculum issues. There is still much to learn about how to help all our children so that ultimately they can lead a "good life." As you return to your work, keep these main points in mind:

#1 Remember that adults know more about almost everything than a small child does — except what it feels like to be that child, and how the world makes sense to him or her. Those things are the children's expertise from which a teacher must learn — to be able to reach and teach them.

#2 Remember also that through their behavior children often ask us to help them become the kinds of persons we want them to be, because that is what they want to be. They want to be the kinds of persons we like — especially while they are still very young! We won't harm them by being clear about what we think is good, right, valuable, worth knowing and worth understanding.

#3 Take care not to confuse what is exciting, amusing, and fun with what is educative. Excitement is appropriate for entertainment and special occasions; it is short-lived pleasure — easy come,

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LILIAN G. KATZ is Professor Emerita of Early Childhood Education, University of Illinois, Urbana-Champaign, and Director, ERIC Clearinghouse on Elementary and Early Childhood Education, University of Illinois.

easy go. But what is educative requires sustained effort and involvement, often includes many routine elements, and offers long-term deep satisfaction rather than momentary fun and excitement.

#4 Remember that learning and development take time — change may not! We can change behavior quickly by using threats and punishments; but when these are removed, there is no real development. And remember that it is very hard to grow around impatient people!

#5 Remember that meaningful relationships have to have content. Relationships cannot be developed in a vacuum; we have to relate to each other about something — something that matters to the members of the relationship. The content of our relationships with children should not be mainly about rules, regulations, and conduct, but about their increasing knowledge and developing understandings of those things within and around them worth knowing more about.

#6 In teaching, as indeed in life, we constantly make decisions. Every decision carries with it its own potential errors. There are probably no error-free decisions. So we have to think ahead about the possible errors embedded in each decision, and then choose the "least worst errors"! In this sense, life is a series of choices of which errors we prefer.

#7 It is a good idea for all of us as teachers to strive for a balance between having sufficient skepticism to be able to go on learning and sufficient conviction to go on acting — for to teach is to act. And effective teaching requires optimal confidence in the rightness of our actions.

#8 As teachers, all we have at a given moment in a given situation is our own very best judgment. Throughout our professional lives we study and reflect in order to refine that judgment; we exchange with colleagues, consider others' solutions to the problems we face, examine the available evidence — all in order to improve our judgment. But in the last analysis, our very best judgment is all there is.

#9 Teaching involves many conflicting pressures and situations. We cannot respond fully or equally to all of them. We have to decide what is worth making an issue over. Don't make an issue over everything. Select those issues that really matter to you. But don't have too many: a half a dozen issues will do! Then take your stand on them with clarity, confidence, and with courage — for the sake of the children.

#10 Cultivate the habit of speaking to children as people — people with minds — usually lively ones. Appeal to their good sense. It is not necessary to be sweet, silly or sentimental at one extreme, or somber, grim or harsh at the other. Let us be genuine, direct, honest, serious, and warm with them, and about them — and sometimes humorous too.

#11 The goal of education is not enjoyment; that is the goal of entertainment. The goal of education is to engage the mind of the learners so that their understandings of significant phenomena and events become deeper, clearer, and more accurate. When we succeed at engaging their minds, the learners find it enjoyable. But enjoyment cannot be our goal; it is a common side effect of good teaching.

#12 I really believe that we cannot have optimal environments for children in preschools, child care centers, and schools unless the environments are also optimal for the adults who work with them and care for them. Certainly on some days what is optimal for the children will be obtained at the expense of the adults (like Halloween parties), and on other days, vice versa. But on the average, on a day-to-day basis, both the children and the adults must find their lives together satisfying, interesting and worth living.

#13 Cultivate your own intellect and nourish the life of your mind. For teachers, the cultivation of the mind is as important as the cultivation of our capacities for understanding, compassion and caring — not less, not more — but equally important. In other words, see yourself as a developing professional; become a student of your own teaching — a career-long student of your own teaching.

#14 Respect your adversaries and resist the temptation to be defensive. Remember, whenever you respond defensively it is partly because you believe the attack, or believe part of the attack; and when you are defensive you are responding to the attacker's rules! Sometimes the attacker is right. But it seems best to respond professionally rather than personally. It seems to me that adversaries and enemies tend to become alike!

#15 Never take someone else's views or opinions of you or your work more seriously than you take your own! Take others' views seriously — there may be much to learn from them — but not more seriously than you take your own; for that is the essence of self-respect, and I believe that children benefit from being around self-respecting adults.

#16 Always assume that the people you work with have the capacities for greatness, creativity, courage and insight. Occasionally this assumption will be wrong, perhaps. But if you always make it, you will be much more likely to uncover, encourage, strengthen, and support these qualities in them.

#17 Never underestimate the power of ideas! Bad ones as well as good ones! Ideas are distinctly human creations, and if they were not powerful many people would not have been imprisoned, exiled, assassinated, sent to Siberia, burned at the stake, executed, or crucified — because of their ideas.

#18 Identify as clearly as you can what your own assignment is, and what is yours to do — and do it as well and as whole-heartedly as you can. Don't waste time blaming history, tradition, politicians, administrators, parents or any other category. In other words, avoid being caught in the "blame drain." We are with the children for such short time and at such an important time in their lives. Make that time count by giving it all you have.

#19 I think the great struggle of our time — and no doubt for generations to come — is the struggle for *equality*. But we might ask: equality of what? People are not equally tall or musical or mathematical or athletic or beautiful; *but they are equally human*! They are equally human in the sense that they all have hopes and dreams and wishes and fantasies and aspirations and fears and doubts. They all want to be treated with respect and dignity and want to feel loved by someone. In these ways it seems to me, all of the world's people have much more in common than they have apart!

#20 The struggle for equality is very much a struggle for the "good life," and the right to a good quality of life, along with the feeling that life is worth living, satisfying and enriching. And it is the aesthetic dimension that accounts for the quality of our lives. As H. S. Broudy (1972) points out, aesthetics have to do with elaborations upon the basics, those elements of form, pattern and texture above and beyond the simple instrumental and that serve to alleviate tedium. The aesthetic dimensions of experience transform caves into homes, running into dance, shouting into singing, growling into poetry, eating into dining, reproduction into romance — and those aesthetic dimensions mark the quality of our lives.

#21 I have tried to share my own views of what education is about. To me it is about developing in the young certain dispositions. These dispositions should include being reflective, inquisitive, inventive, resourceful, full of wonder (wonder-full?), wonderment, and puzzlement. These dispositions should include the habits of searching for evidence; they should include also the dispositions to be tender, courageous, caring, compassionate and include some humor as well! But I refer you to the definition of education provided by the British philosopher R. S. Peters (1965):

> To be educated is not to have arrived at a destination; it is to travel with a different view. What is required is not feverish preparation for something that lies ahead, but to work with a precision, passion and taste at worthwhile things that lie at hand. (p. 110).

#22 It may be time to re-phrase the ultimate goals of education, so that it is not driven by the notion that unless all our children grow up to be engineers, scientists, CEO's, doctors and lawyers, etc., the education system has failed. Rather, the goals should be cast in terms of the proposition that whatever a child ultimately does for his or her life's work, and in whatever way they contribute to their communities is not predetermined at birth by gender, race, ethnicity, or family income level. This is not an easy goal, but one that is more realistic than pushing all of them to become rocket scientists.

#23 I really believe that each of us must come to care about everyone else's children. We must come to see that the well-being of our own individual children is intimately linked to the well-being of all other people's children. After all, when one of our own children needs life-saving surgery, someone else's child will perform it; when one of our own children is threatened or harmed by violence on the streets, someone else's child will commit it. The good life for our own children can only be secured if it is also secured for all other people's children. *But to worry about all other people's children is not just a practical or strategic matter; it is a moral and ethical one: to strive for the well-being of all other people's children is also right.*

#24 Remember that whoever might be president of our country in forty or fifty years from now is likely to be in someone's early childhood program today. Let's hope she is having a good experience!

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Kindergarten Education: Theory, Research, and Practice
Vol. 6, No. 1, Spring/Summer, 2001 – pp. 41-57

Shared Enactment: A Meaning-Oriented, Socially Interactive, Skill-Based Approach to Literacy

Janet Wallace

The purpose of this article is to relate an activity called Shared Enactment which promotes individual narrative/literacy activities, story comprehension, and social skills and develops metacognition in children through its precursor, metaplay. The activity is meaning-oriented and socially interactive, providing a playful context as it teaches specific literacy skills: strategies that the research and literature have shown to promote optimal learning in young children. Shared Enactment involves dictation of stories generated by children, the use of scaffolding by the teacher to explicitly teach skills, and enactment of the stories by the children with the child/author serving as the director. One question guided the implementation of this practice: Can students be taught specific skills advocated in a standards-based curriculum and *still* engage in meaning-oriented, interactive activities which are essential to optimum learning? The practice is described and examples of children's dictated stories, their enactments, and teacher's scaffolding techniques are shared.

Many California teachers today are experiencing a "crisis of conscience." Our education and training emphasized that learning for the young child should be "hands-on," socially interactive and personally relevant. We carefully devised activities in our classrooms that encouraged self-expression and creativity in an environment that developed the students' emerging literacy skills. These days, however, my kindergarten colleagues are finding less time and support for such approaches. They express frustration over high-stakes testing and mandated standards that crowd out valuable time for the meaningful activities that were once *de rigeur* of the kindergarten curriculum. Too many kindergarten teachers feel compelled now to engage their students in seat work activities such as workbooks and drill-and-skill papers in order to "prepare" them for tests and to meet the standards requirements, which provide little in the way of relevant, hands-on learning (International Reading Association Position Statement, 1999; Kohn, 2000). Yet nearly every theoretical framework of child development and research on how young children learn confirms the importance of children being involved in meaningful, socially interactive learning (Piaget & Inhelder, 1969; Vygotsky, 1976; Bredecamp & Copple, 1997).

As a teacher who implemented meaning-oriented and interactive teaching methods with my own kindergarten students, I wondered if the recent emphasis on accountability actually was, in fact, forcing kindergarten teachers into an either/or situation: either teach basic skills so that

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JANET WALLACE is a teacher in San Juan Unified School District and a graduate student in Early Childhood Education at California State University, Sacramento.

students regurgitate facts OR teach these skills in a way that fosters real learning? I found myself questioning this apparent dilemma: Could students be taught specific skills according to the standards-based curriculum and engage in meaning-oriented, interactive activities? As I pondered this question, I determined that I first needed to reacquaint myself with the research and literature on the conditions that foster optimum learning for young children.

In the current, almost frenzied, climate of accountability, it is easy for any of us teachers to lose sight of the learning theory principles which we were taught. We were steeped in these principles during our education, and we once enthusiastically implemented them in our classrooms. It behooves us all, as responsible educators, to revisit these principles and examine what the experts have to say with regard to providing children with optimal learning experiences. With that in mind, I will first present what the research and literature has to say on the subject of good teaching strategies for young children and will then describe a particular practice that I have used with kindergartners that incorporates these principles. As I reviewed the literature on learning theory, three strategies emerged with regard to optimal learning:

- Young children learn best within a playful context, which includes social dramatic play and metaplay.
- Learning needs to be meaning-oriented, active and socially interactive.
- Scaffolding techniques help children progress to new learning.

Let us now explore these important strategies as I describe each in detail.

Optimal Learning Strategies

Learning in a Playful Context

Play is deemed by many experts to be crucial to the development of the whole child (Piaget, 1962; Vygotsky, 1976; Bruner, 1983). The National Association for the Education of Young Children (NAEYC) supports children's play as a "primary vehicle for and indicator of their mental growth…In addition to its role in cognitive development, play serves important functions in children's physical, emotional, and social development" (Bredecamp, 1987, p. 54). Play is the child's natural process of learning and is an indispensable ingredient in the education process (Frost 1992).

Symbolic play is a critical foundation for literacy development and the key to representational thought (Piaget, 1962) and for the development of abstract thinking (Vygotsky, 1976). In symbolic play, the child uses one thing to represent something else, as when a child uses a block to represent a truck. Research indicates that using symbols in play is prerequisite to using signs in written language (Pellegrini & Galda, 1991). Furthermore, in symbolic play, children practice language for communication and develop and practice literacy (Einarsdottir, 1996) and vocabulary (Berk & Winsler, 1995).

Social dramatic play is an activity which involves verbalization between two or more children, the negotiation of conflict and the use of *nonliterality* (i.e., where one thing represents something else) (Pellegrini &

Boyd, 1993). Smilansky and Strefatya (1990) studied children's dramatic play and found that the benefits include:

- Helping children develop abstract, logical thought
- Enhancing cooperative and social skills
- Contributing significantly to cognitive development
- Enhancing story comprehension and language development

As social dramatic play becomes more complex, children begin to engage in a process called *metaplay*. Metaplay involves children resolving conflict or giving directions within that dramatic play context. While acting out a role, the child briefly steps out of character in order to clarify or negotiate action or behavior (Williamson & Silvern, 1992). Thus, when children work out disagreements in their enactments during social dramatic play (i.e., "Let's cross over the bridge." "No, the story says to go around it."), they think about their own actions and feelings and also take another's perspective into account as they seek to resolve the conflict. Trawick-Smith (1998) found three types of metaplay behaviors: (1) Initiation (behavior which halted role playing in order to initiate a new play activity or to engage peers in conversations or physical interactions related to the play theme); (2) responses (behavior in which children would step out of role to respond to the comments and behaviors of peers); and (3) constructions (physical actions, sometimes accompanied by verbalizations, in which props were arranged or the play setting was constructed). In all three categories, five-year-olds demonstrated metaplay behaviors much more frequently than younger children. Trawick-Smith suggests that the preoccupation with construction by the five-year-olds in the study may characterize a transition from the more spontaneous pretend actions of earlier years to this more organized and planned play. The author points out that during these metaplay transactions, children must think and talk about symbolic representations and other internal mental processes. In elaboration, Trawick-Smith states:

> When a child says, "Let's pretend the queen doesn't know about the hunter," for example, she is analyzing thought processes on two levels. She is contemplating her own internal act of pretending ("Let's pretend...") and also considering a make-believe character's act of knowing (... "the queen doesn't know"). These out-of-play-frame behaviors—metaplay behaviors (Fein & Schwartz, 1986)---involve not only elaborate social and verbal interactions with peers, but also important metacognitive processes as well. (p. 434)

Metaplay is the precursor to *metacognition*, which is defined as thinking about the way we think, act and feel (Caine & Caine, 1994). Students using metacognition access higher order thinking by analyzing and evaluating the strategies they use in learning situations. A primary student, for example, uses metacognition when she works on a subtraction problem and thinks about her answer ("Did I remember to borrow?"). Metacognition also allows the child to move away from a strictly egocentric orientation and take another's perspective into account by thinking about how the other person is thinking or feeling (Williamson & Silvern, 1992). A child might use metacognition when devising a strategy for handling a situation differently next time, after thinking about something he or she said or did that caused a playmate to become angry. It is children's early experiences with metaplay, which occur most frequently during the kindergarten years (Trawick-Smith, 1998), that form the basis for more complex metacognition in later years.

Studies have also shown that instances of metaplay in kindergarten children contributed to the acquisition of specific literacy skills. Williamson and Silvern (1992) investigated the contributions of play and metaplay to story comprehension and language production skills among kindergartners within a thematic-fantasy play context. The study found that the language used by metaplayers (i.e., "You be the wolf." or "Let's pretend the pirate gets mad.") was *instrumental*; that is, it moved the story along and required sophisticated social skills, such as social problem solving and perspective-taking, as well as knowledge of story schemes. Moreover, the study found that the *directorial role* of the child was an essential ingredient in the acquisition of story comprehension ability during such metaplay sessions; children who did not take on the leadership role of director in the play did not fare as well in comprehension skills. The implication for teachers, say the authors, is in providing opportunities for each child to take on the role of "director" in the play (Williamson & Silvern, 1992).

The benefits of child-directed stories is not limited to story comprehension gains. Fein, Ardila-Rey, and Groth (1998) highlighted further positive outcomes that are derived when children act as directors of their own stories. The study found that the frequency of narrative/literacy activities during free play showed significant, positive changes, and children's story writing increased as well.

A playful context, then, provides children, especially kindergartners, with opportunities for metaplay, which, in turn, develops story comprehension, language production skills, and story writing, and increases engagement in narrative/literacy activities during free play; metaplay also is the precursor to metacognition. This play, though, needs to include social interaction and be meaning-oriented.

Active, Meaning-Oriented, and Socially Interactive Approaches

The push for increased academics in kindergarten has caused teachers to spend more time engaged in directed teaching, drill, and seat work assignments that focus on the material covered on standardized tests (Kohn, 2000). Such practices fail to take into account the second component essential to young children's optimal learning: the need for active, meaning-oriented and interactive learning where children are most competent (Jones, 1997).

Children become fully engaged, active learners when the context is meaningful and personally relevant, as research by Guthrie, et al. (1996) has shown. This study, involving third and fifth graders, investigated the effects of a strategy called Concept-Oriented Reading Instruction (CORI). The strategy was designed to increase students' engagement in literacy and science and involved activities which were student-initiated, meaning-oriented and socially interactive. The third grade participants, for example, studied the adaptation of animals to their environment with a 12-week study unit on birds. Students observed bird nests, attempted to build their own bird nests, drew feathers, and recorded behavior at feeding stations. Students kept journals of their observations and personalized their interest in this learning activity by writing questions both as teams and individuals. Wall displays were created with the materials found in bird nests, and the children composed books on their favorite birds.

One significant outcome for the student participants was increased *literacy engagement* (i.e., high involvement by readers who choose to read for its own sake and who demonstrate a wide range of literacy activities for aesthetic enjoyment and gaining knowledge). Additionally, the participants engaged in higher order thinking strategies and demonstrated increased involvement, curiosity, and self efficacy. The findings suggest that engaging, meaning-oriented classroom contexts encourage the following outcomes:

1. Student-initiated learning through a generation of questions from real-world observation

2. Focus on substantive, meaningful topics that facilitate conceptual learning rather than isolated reading skills

3. Increased collaboration among students, emphasizing social construction of meaning

4. Expressiveness through writing, debating, and group interaction

Students of all ages can benefit from such meaning-oriented, socially interactive contexts. Neuman and Roskos (1997) state that young children's learning about literacy is integrally woven with practical action that derives from their need to control, manipulate and function in their environment. The researchers investigated three literacy-related play settings within a preschool in which the settings reflected real-life environments (i.e., a doctor's office, a restaurant, and a post office). The study found that the students adapted tools of literacy, such as paper, pencils, props, and environmental print, for specific purposes and engaged in strategic behaviors that involved problem solving. These playful settings facilitated children's learning about the forms and functions of written language by providing students with the opportunity to become naturally involved in literacy-related activities. The findings suggest that young children's initial conceptions of literacy and strategies for reading and writing are mediated through social interactions and are practiced within pressure-free, authentic contexts.

Participation in such meaning-oriented, socially interactive activities represents critical cognitive work in literacy development for young children (Neuman & Roskos, 1997). Thinking, in fact, according to Vygotsky (1976), develops out of social activity through internalization of the processes and practices provided by the social context. Although much of what children internalize about literacy often occurs naturally in dynamic, playful situations (Iran-Nejad, McKeachie, & Berliner, 1990), teachers can further assist children with the internalization process through a technique called scaffolding.

Using Scaffolding to Teach New Skills

Scaffolding is defined as the support given during a lesson in which the teacher (or more skilled partner) adjusts the assistance he or she provides to fit the child's current level of performance (Berk & Winsler, 1995). By drawing on the child's previous knowledge, the teacher can gently guide the student in order to teach new skills. If the class has been working on the short "a" sound, for example, the teacher, in working with an individual child, reminds her of the words they have previously learned with the short 'a' sound in order to sound out new words.

In summary, the research and literature about facilitating optimal learning for young children supports the following strategies:

- Playful contexts (including social dramatic play and metaplay) that foster the development of symbolic representation and metacognition

- Active, meaning-oriented, and socially interactive learning that connects subject matter to the real-world experiences of the child

- The use of scaffolding to teach new skills

Putting It All Together with "Shared Enactment"

As I examined my teaching strategies — techniques I had used over the past thirty years in teaching preschool, elementary school and kindergarten — I concluded that many of the activities in my curriculum incorporated these three essential strategies. One practice in particular, however, stood out: "Shared Enactment." This strategy utilizes children's dictated stories and provides a playful context, the opportunity for metaplay, and the use of scaffolding. Thus *all* of the three aspects for optimal learning are pulled together nicely into a single strategy. Briefly, here is the procedure: Children dictate their stories or experiences and then perform them using classmates as the cast. The author of the story acts as the director while the story is being enacted. To illustrate how this process works, a detailed description of the Shared Enactment approach follows, with examples of actual student experiences using this method.

Shared Enactment: How To Do It

When I taught kindergarten, the population of my classes changed from year to year, but overall my students ranged in age from 4 years 9 months to 6 years of age; the majority were five years old. I taught in a lower middle-class suburban neighborhood in a northern California public school where the ethnic population comprised approximately thirty percent (African-American, Asian, and Latino).

Dictation

Each Monday during our scheduled exploration/free play time, I would check the large wall chart in the writing area, which listed each child alphabetically by first name. One by one, I would call children back to a table and ask them to tell me a story; I wrote down everything the child told me, verbatim, asking for clarification and elaboration where necessary. This technique, often referred to as the language experience approach, embeds student's background knowledge and experiences by eliciting stories from the children based on their own experiences (Nessel & Jones, 1981). Briefly, this process involves the following steps: (1) The teacher and child discuss an experience or topic for dictation, and (2) the child states ideas and the teacher records the statements (Nessel & Jones, 1981). Kirk (1998) suggests that the teacher also provide prompts or other guiding techniques during the dictation in order to assist the child with story continuity and elaboration of ideas and dialogue, yet being careful not to put words into the child's mouth which would undermine the child's contribution. As children completed the dictation with me, they checked their names off on the alphabetical wall chart. Since the wall chart was in plain view in the classroom, students excitedly anticipated their turns; they could see when their names were coming up on the chart.

Although I typically did the dictation during our exploration/free play time, it is also possible to incorporate it during the regularly scheduled reading or literacy time, which I also did on occasion. Since I encouraged extensive parent participation in my kindergarten classes, I was able to have parents monitor group activities (alphabet games, a writing center, dramatizing familiar stories, book reading) while I met with individuals or pairs of children for dictation. In years when parent help was scarce, I utilized older students (fifth and sixth graders) who would help with the groups so that I could proceed with the dictation activity.

Scaffolding during Dictation

Scaffolding gives support to a child during a lesson in which the teacher (or more skilled partner) adjusts the assistance to fit the child's current level of performance. The children in my kindergarten classes varied in their ability to construct stories that had continuity or incorporated enough dialogue for a performance; consequently, depending on the skill level of the child in this area, I would prompt him or her with such remarks as: "Once upon a time..." or "How do you think they'll solve this problem?" or "I wonder what Johnny will do now!" Comments such as these guide the children, as they dictate, toward developing the sequence of the story or in helping to find the story's beginning or end. In this way, I was able to scaffold children's learning about story construction and dialogue. The following example illustrates this process, a dictation with Kyle, who was having difficulty with story sequence and the use of dialogue.

Kyle: "Once upon a time there was this dragon and fire comed out of his mouth. He was scaring all the kids." *(Long pause. K: I don't know what else.)*

Tchr: "Did the children talk to him?"

K: "Yeah."

T: "What did they say to the dragon?"

K: "This one kid, his name was David, he said, 'Why are you doing that, scaring us, Dragon?' The dragon says, 'Because you kids are bothering me.' Another kid, Joaquin says, 'Hey, Dragon, you have to stop.' But the dragon just made some more fire come out. David says, 'Hey, let's get out of here!' So they runned." *(Another long pause. K: I can't think of anything else.)*

T: "I wonder how those boys will solve this problem. Do you think they can find a way to stop the dragon?"

K: "Yeah! They said, ' Let's go to Jenny's house and get her sword.' "

T: "Who said that? Joaquin or David?"

K: "Joaquin." *(Long pause.)*

T: "What happens next?"

K: "They run to Jenny's house and then David says to Jenny, 'Hey, Jenny, we need your sword so we can kill the dragon!' " *(Long pause again.)*

T: "Does Jenny say anything?"

K: "She says, 'I'll get it.' She runs and gets the sword. 'Here it is. Can I help you guys?' "

As demonstrated by the example, child/authors often need help from the teacher in elaborating on their ideas. While gently prompting, being careful not to interfere with the child's creative input, the teacher can help the child develop the plot line of the story and elaborate on his or her ideas. The teacher may also suggest the use of dialogue or more descriptive language; guiding questions also help a child stay focused with the story. In true Vygotsky fashion, the teacher coaches her students and provides scaffolding for the children, a process which encourages their progression to higher mental functions and the acquisition of specific literacy skills (Berk & Winsler, 1995; Tudge, 1992).

After reading the completed dictation to the child and making corrections he or she may deem necessary, it is placed in the "Story Box": a large, gaily decorated cardboard box that sits atop a small table in the writing center. These stories can be acted out later that week during Circle Time, if the child so chooses. In my own classroom, we always performed them on Friday; the children looked forward to the occasion all week long.

Acting It Out

When the time comes to act out the stories, the class gathers in the Circle Time area, creating a "stage" in the center for the story enactment. I take a story from the "Story Box" and call up the author, reading the story once through while everyone listens. I then invite the author to select the cast for the "performance." Vivien Paley (Wiltz & Fein, 1996), who has used Shared Enactment with her kindergartners, suggests an "everyone can play" method; rather than having the author/director choose his or her friends, he or she simply goes around the circle selecting children in sequential order so that all the children have an opportunity to perform if they wish. The child/author, with prompting from the teacher, is asked what props he or she will need for the performance. With the cast now positioned in the center of the circle and props in place, I read the story again *slowly*, allowing time for action by the players and direction by the author. Sometimes the teacher may need to interject prompts to keep the action going. Rather than taking over the director's role, Williamson and Silvern (1992) recommend only making comments that encourage problem-solving by the children. For instance, the teacher could say: "Author, what do you want the Grandma to say?" or "Author and cast, how can you solve this problem together?"

The following example of an actual enactment illustrates the dynamic of *metaplay*, which Shared Enactment fosters to a high degree. Metaplay, as noted earlier, is a precursor to metacognition for young children; as children enact specific play roles, they may step out of character briefly in order to negotiate an action or clarify a point in the play. These actions permit a child to think about how she is thinking, feeling or acting and also allow her to take another's perspective as they seek to work out disagreements (Williamson & Silvern, 1992). The instances of metaplay that occur in the example below are in bold print.

In this example, I am reading Jessica's story, a shy child who had difficulty taking the initiative or even interacting at all in group situations. At first, I worked with her story enactments in a small group setting, so that she would not feel overwhelmed by being thrust in front of the entire class. On this particular day, later in the school year, Jessica has taken a giant step forward and is ready to direct her story for the whole class. After reading the story once through and having Jessica select her cast and props, I say, "Let's begin." Slowly, I read Jessica's story, allowing time for the dramatics.

Teacher: "Max the dog was digging a hole in the backyard."

Max: (played by Connor) Connor digs an imaginary hole with his hands.

Jessica: **"Bark, Connor, so we know you're a dog!"**

Max: (Connor) "Woof, woof!" (**"Maybe I could stick out my tongue like this?"**) He pants.

Jessica: **"Yeah, like that, Connor. Stick it way out!"**

Teacher: "The mom comes out and yelled at Max for digging."

(Sarah, a shy child who plays

the Mom, hesitates. I encourage her: "What could you say to stop Max from digging, Sarah?")

Mom: (played by Sarah) "Max, stop digging!"

Jessica: **"Say: 'You're wrecking our yard!' "**

Sarah: "You're wrecking our yard!" **("I'm going to push him like this, too.")**

Jessica: **"Yeah, okay, push him — but not too hard."**

As the drama continues, with improvisations and directorial coaching by Jessica, the play unfolds to the delight of cast and audience alike. Metaplay occurs each time a child steps out of role or whenever Jessica gives instructions to the cast. As noted earlier, the directorial role of the child is an essential ingredient in the acquisition of story comprehension skills (Williamson & Silvern, 1992). Establishing a format for this kind of metaplay is especially helpful for kindergarten and even early primary children who have difficulty with story comprehension (Williamson & Silvern, 1992). Additionally, students like Jessica who are reticent about interacting within a group setting or "taking the lead" with their peers gain valuable social skills with the Shared Enactment approach. Fein, et al. (1998) found that experiences with Shared Enactment encouraged the development of children's social skills due to its highly interactive context. Moreover, the frequency of individual narrative/literacy activities during free play also showed significant increases (Fein, et al., 1998).

Encouraging Everyone to Participate

At the end of the dramatization, the teacher invites the audience to applaud. All efforts by the author and cast, regardless of how small, should be acknowledged.

When first beginning this activity with my own kindergarten students, I found it prudent to start with the stories of authors with some leadership skills. They can provide a model for "how it's done" for the more reticent children in the group. Kirk (1998), who used Shared Enactment in her classroom, reported that, while participation was limited at first to her more out-going students, eventually all of the children joined in. The importance of encouraging all of the children to take part, however limited at first, cannot be over-stressed. For students such as Jessica, who may be intimated by taking on a leadership role with the whole class, it is better to start to work with them in a small group at first. As these children see the progress they are making when they gradually assert themselves as the director, they gain confidence and will usually consent to a performance in front of the entire class. If not, the benefits they derive from the smaller group experience are still worthwhile.

Working with the Standards

Shared Enactment employs all of the important components that promote optimal learning in young children: an active, meaning-oriented, and socially interactive format within a playful context that uses scaffolding to teach new skills. We have also seen how Shared Enactment develops many important literacy skills in kindergartners, including story comprehension, metacognition (through its precursor, metaplay), and an understanding of story continuity, as well as encouraging the development of social skills. Certainly, such skills are vital to any kindergarten curriculum.

The kindergarten standards, in fact, stipulate comprehension expectations for kindergartners: "Students identify the basic facts and ideas in what they have read, heard or viewed" (Academic Standards Commission, 1998, p. 5). In Shared Enactment this standard is met inherently as the student thinks about and dictates ideas for the story. In enactment the student as director may state basic ideas, as may the players when discussing the enactment. This standard can be overtly met immediately after the dictation by having the student state the major ideas as a summary of his or her piece. This standard can also be overtly met by having the students who participated in the performance, as well as those who viewed it, recall the main points of the story upon completion of the enactment.

Increased story comprehension and understanding story continuity are important enough concepts to justify the use of Shared Enactment in any kindergarten classroom. These objectives are natural outcomes of children constructing their own stories. Actors reap similar benefits through their improvisations and input during the enactment. Yet, as I reflected on the current accountability requirements, a question began to form in my mind: Was it possible, I wondered, to include more skill-teaching during the Shared Enactment experience and incorporate additional skills prescribed by the standards? After examining this approach, I came to the conclusion that Shared Enactment provides a format for promoting other kindergarten standards; these standards can be addressed specifically using this practice by expanding on the scaffolding process. Additional kindergarten standards stipulated by the Academic Standards Commission (1998) that could be addressed through expanded scaffolding during the child's dictation or performance include the following:

Concepts About Print and Phonemic Awareness

- Distinguish letters from words (1.5).
- Recognize and name lowercase and uppercase letters of the alphabet (1.6).
- Blend vowel sounds orally to make words or sentences (1.9).

Written and Oral English Language Conventions

- Recognize and use complete, coherent sentences when speaking (1.1).

Speaking Applications

- Relate an experience or creative story in a logical sequence (2.3). (pp. 1-5)

At crucial points during the story dictation phase, the teacher can employ implicit instruction, through scaffolding, to teach or reinforce one or two skills advocated by the standards.

It is important for the teacher to limit this instruction to one or two skills, otherwise the teaching may not be as effective; too many concepts at one sitting can be confusing to the child (Depree & Inverson, 1994; Graves, 1983). With my own students, I kept a checklist of the skills each child needed to work on so that I could focus on only one or two of them for that day. I looked for opportunities to reinforce or teach those skills, through scaffolding, during the child's dictation. The example that follows illustrates how this expanded scaffolding technique can be accomplished.

I was working with five-year-old Maria who dictated a story based on her experience of helping her grandmother make tortillas. Maria was a bright Latina student who was already sounding out words early in the school year, so I chose that skill to be the focus of my directed teaching; I also emphasized dialogue elaboration so that the story would lend itself more to a performance.

Teacher: "So, you want to tell a story about making tortillas with your grandmother? How should it start?"

Maria: "One day my grandmother was going to make some tortillas and she wanted me to help her."

T: "We need your grandma to talk here. What would she say to you?"

M: "Pequena Mariposa (*That's what my grandma calls me. It means 'little butterfly'.*), you must help me make these tortillas now. No more watching TV!" *(I stop writing and ask Maria to sound out "me," a word we have not sounded out before. The following is the procedure for sounding out new words: T: "What do you hear in 'me?' Maria: "Mm. That's just like my name!" T: "That's right, there's an 'm' in 'me' and in 'Maria.' " I write the letter "m", repeating its sound as I do so. T: "After the 'm', what sound do you hear?" Maria: "Eee. Must be 'e', then." T: "You are right again! Here's how we write it." I write 'e' and I say its sound as well. She tells me how to write "TV".)*

T: "And what did you say?"

M: "Okay, Grandma."

T: "Is that what you call her?"

M: "No, I call her 'Abuelita.' That's 'grandma' in Spanish."

T: "Let's write 'Abuelita,' then. So, you say, 'Okay, Abuelita.' What else?"

M: " 'What can I bring for you? *(I stop writing and ask her to sound out "can.")* Do you want some harina?' That means flour." *(I write the Spanish word, just as Maria has dictated it.)*

"Abuelita says, 'Si, bring the sack of harina.' I say, 'But that sack is so big, Abuelita! I can't carry it!' *(I stop writing and we sound out "big.")* Abuelita says, 'Si, it is muy grande *(That means very big!)*, but you can do it, Pequena Mariposa. You are strong!' *(We stop to sound out "but." Maria remembers the word "can" from before and offers to spell it without help this time.)* So I carry it over. It's very heavy. I have to drag it on the floor."

T: "Now what happens?"

M: "She pours the flour, the harina, and some water in a pot and mixes it up with her hands. *(We stop to sound out "pot.")* I want to roll it out with the roller thing."

T: "The rolling pin?"

M: "Yeah, the rolling pin."

T: "Let's do some talking here. What did you say to your abuelita?"

M: "Let me roll them out with the rolling pin, por favor." *(We stop to sound out "let" and "pin.")*

The dictation progresses while I continue to encourage Maria to sound out some of the words and elaborate on the dialogue. As she gained proficiency later in the year, I invited Maria to actually write some of the words herself as she sounded them out, being careful to only focus on one or two skills during each dictation session. Through this scaffolding process, Maria practiced specific literacy skills.

One added benefit of Shared Enactment is illustrated in the dictation with Maria: It demonstrates how it is possible to make the story dictation culturally relevant by bringing in personal experiences from the child's cultural background. Such a culturally responsive approach is essential for children from diverse backgrounds and enhances their learning by correlating subject matter to the students' world (Cochran-Smith & Lytle, 1992).

What Teachers Need for Shared Enactment

- Wall chart with children's first names listed alphabetically
- Table or quiet area for dictation of stories
- Paper and pencils for dictation
- Story Box for collection of finished stories
- List of skills (no more than 2) that you will be working on with each child
- Area for enactments (i.e., Circle Time area)

Conclusion

Kindergarten teachers today may feel that they must sacrifice good teaching practices that promote optimal learning in young children for the sake of a standards-based curriculum. As my experience with the Shared

Enactment approach has shown, no sacrifice, in fact, is necessary for California's kindergarten teachers. Good teaching practices, indicated by the literature and research to promote optimal learning, can go hand-in-hand with a standards-based curriculum. It is possible to incorporate meaning-oriented and socially interactive activities within a playful context while *still* teaching the specific skills advocated by the kindergarten standards through expanded scaffolding. Meaningful activities that foster opportunities for social interaction are the "nuts and bolts" of cognitive development for young children (Rogoff, 1990; Tudge, 1992). Additionally, research has shown that Shared Enactment promotes story comprehension, social skills and increased storytelling skills during free time activities (Fein, et al., 1998; Williamson & Silvern, 1992).

My own kindergartners gained much from the Shared Enactment approach. The dictation process, based on the language experience approach, provided a meaning-oriented activity, for the children's stories drew upon their personal experiences. The dictation also enabled my culturally diverse students to share their cultural backgrounds and language with the class, as Maria's example demonstrated. The children in my class took particular delight in the Spanish words they learned from Maria's story when the story was acted out and used them frequently in their free play activities for months afterward. Gradually, through the year, my students became more adept with story construction and continuity and elaborated more and more on their ideas. As they acted out the stories, they engaged in metaplay, the precursor to metacognition, when they stepped out of character to clarify or negotiate the action. Metaplay inherently promotes within children during their earliest school experiences the very outcomes that school administrators advocate by high school graduation: metacognition, cooperative learning, and problem solving (Neves, 1998).

My kindergartners eagerly awaited their turns to dictate their stories and looked forward to Friday each week, the day we acted out them out. They wiggled with excitement as we took our places on the carpet and beamed with pride when it was their turn to act as director of the story. My own enthusiasm was sparked because I had a classroom of children who were actively engaged in their learning while they were acquiring new skills, *and* they were having fun doing it! With a little extra effort on my part, I did not have to rely on workbooks and drill-and-skill seat work activities in order to feel that I was adhering to the standards. I was able to implement many of the kindergarten standards into the Shared Enactment approach by extending the use of scaffolding without sacrificing the teaching strategies that foster *real* learning.

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Emergent Literacy in Kindergarten:

A Review of the Research and Related Suggested Activities and Learning Strategies

by Violet B. Robinson, Gretchen Ross, and Harriet C. Neal

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After an explanation of literacy requiring a change from the oral to the written register, the authors review research on register, reading comprehension, phonological processing, and writing. A later chapter includes recommended activities and learning strategies.

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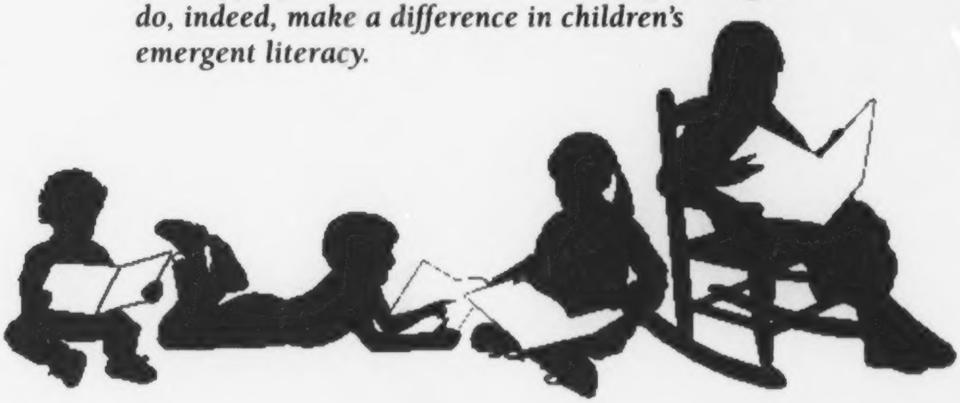

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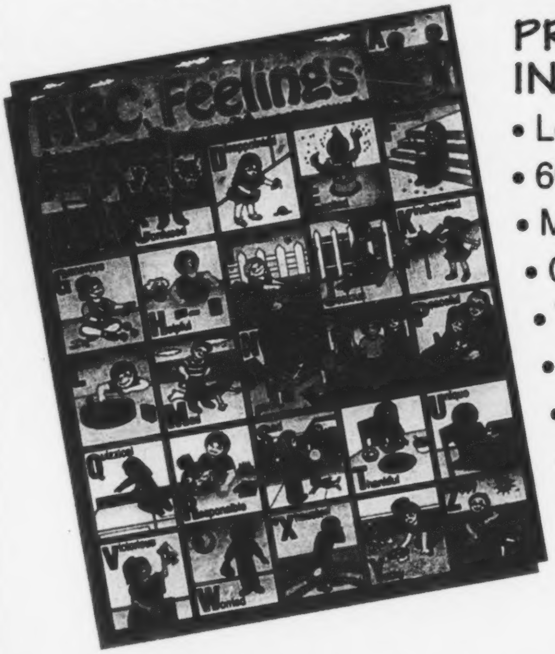

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Volume 6, No. 2 • Fall/Winter, 2001-2002

A Journal of the California Kindergarten Association

PS 030393

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Home as Partner: The Shared Connection

Nancy Lee Cecil

This article helps teachers of young children establish a home-school connection that integrates the literacy experience of the child at home and in the community with the classroom literacy instruction. After reviewing some research on home literacy, the importance of understanding differences in home practices is discussed. Suggestions for making the initial connection and for conducting parent workshops are provided. Other forms of communication with parents are presented.

In the Classroom

Mrs. Nguyen teaches kindergarten in the inner city of Los Angeles. Early in the school year, Mrs. Nguyen collects the personal literacy histories of every child in her class to inform her later instructional decisions. Much as physicians gather the extensive medical history of children whom they will treat, this teacher knows that she must find out what literacy experiences the children have already had, as well as the kind of literacy materials to which they have been exposed, in order to get a clear picture of where to begin teaching them. She knows that every child has had rich experiences upon which to build, although these experiences may differ from what middle class youngsters commonly encounter. She has found, contrary to what she originally expected, that the parents are eager to share information about their children and are usually willing to be active participants in their child's reading development.

Because standardized reading test scores have suggested that many of her children may be at risk for reading failure, Mrs. Nguyen uses their own community materials as "fodder" for early literacy instruction. For example, she scours their neighborhood for letters on stores and signs with which they will be familiar, takes pictures of them, and brings them into the classroom for instruction. She uses the "m" in McDonald's, the "t" in Taco Bell, and the "K" in K-Mart, and so forth, to reinforce these letters. Children, then, are encouraged to look for other environmental print when they go home at the end of the day. Parents are invited to share in this literacy scavenger hunt and many express gratitude to the teacher that they have been able to be of assistance.

Introduction

The above vignette illustrates a primary aspect of the home-school connection that is important for teachers to keep in mind. The example from Mrs. Nuygen's classroom demonstrates the integration of literacies from the children's homes and communities with the classroom literacy instruction. It also shows a profound regard for the parents and caretakers as partners in the literacy process who have already laid the foundation and are interested in helping in

NANCY LEE CECIL is Professor of Teacher Education at California State University, Sacramento.

any way they can.

It is often said, and will be echoed throughout this article that parents are their children's first teachers. Consider: Beginning at birth, all the experiences children amass affect their later success in literacy. Moreover, the success of the school literacy program depends, in large part, upon the quality of the literacy opportunities that occur in the home. Because some children come to school already knowing how to read and write, researchers have extensively studied such children and their homes (Briggs & Elkind, 1973; Morrow, 1983; Teale, 1978). Although the parents often claim the children simply began reading and writing "naturally," investigators are now convinced that there is much that can be done, through adult/child interaction and through the home environment, to enhance the literacy program that exists at school.

Parents can influence their children's literacy development in several different ways. The first way is through interpersonal interaction with them. This includes the various ways in which all members of the household converse, work, and play with one another. The second way is through the climate of the household. When members of the household hold literacy in high esteem and retain high academic expectations for their children, the motivational climate in the household is favorable to positive literacy development. Finally, the physical environment in the home also has a direct impact on literacy development. When the tools of literacy, such as books, magazines, newspapers, writing materials, and so forth are in the home, a subtle yet profound statement is made about the importance of literacy activities in that home.

The following paragraphs offer more specific information, synthesized from current research, on exactly how these three factors enhance reading development in the home.

Research on Home Literacy

Every teacher hopes for a class full of students with parents who care about and support their literacy growth at home. Teachers know, intuitively and through research, that such children will have a much easier road to becoming readers and writers. Indeed, research from the 1970s and 1980s consistently identifies and reports strong correlations between parents reading to and with their children and children's later success in literacy (Chomsky, 1971; Laosa, 1982; Anderson et al, 1985; Teale & Sulzby, 1986). More recent research has attempted to identify the essential nature of what transpires during parent-child reading interactions to make them so beneficial. Lancy and Bergin (1992) found children who are more fluent and positive about reading came from parent-child pairs who viewed reading as fun, kept stories moving with a "meaning-seeking" rather than a purely "decoding" orientation, and encouraged questions and humor while reading together.

Teachers have long been telling parents to simply "read to your child!" but perhaps this exhortation has been misguided in the light of current research. For example, Lancy, Draper and Boyce (1989) describe the parents of good readers as using expansionist strategies, which include adding personal information and explanations, or scaffolding, as their children grapple to understand stories. For example, the parent might start reading a story with the child and then make guesses as to what will happen next, modeling the comprehension strategy of making predictions. Over time, the parent takes a less active role and encourages the child to utilize these strategies when reading, especially useful with a story that has been read multiple times. When the child experiences difficulty, the parents of good readers would tend to make a mild joke of it, thus diffusing anxiety, while the parents of poorer readers treat a decoding error as a serious infraction, sometimes even covering up an illustration in order to prevent "cheating," according to Lancy, Draper, and Boyce.

Tracy and Young (1994) studied the home reading behaviors of struggling and more advanced readers and their college-educated mothers. They found no difference in the frequency of children's oral reading during first grade and, indeed, found struggling readers to actually do more oral reading in second and third grades than did the more proficient readers. Tracy (1995), in a later analysis of video-taped reading sessions with struggling and more advanced readers, notes striking differences in the degree to which the advanced reader received more physical and verbal attention, support, and extended feedback. In a more in-depth study of more than 40 families, Baker, Sonnenschein, Serpell, Fernandez-Fein, and Scher (1994) analyzed differences between literacy activities of low- and middle-income families. Low-income families reported doing more reading practices and homework (e.g. flashcards, letter practice) with their kindergarten age children than did middle-income parents; middle-income parents reported only slightly more joint book reading with their children than did low-income parents. These middle-income parents did, however, report a good deal more enjoyable activities with print and more recreational reading by their children. From these studies, it appears that the nature of what actually takes place during literacy times appears to matter a great deal—perhaps more than the mere fact that parent-child literacy event occurs .

Understanding Differences in Home Practices

Since many teachers come from middle-class backgrounds, there is often an unfortunate tendency to view effective home literacy practices to be only those that teachers recall experiencing in their own comfortable homes. The image that most often comes to mind, then, for most teachers is a young child sitting on the lap of a parent—usually a young female—while a large story book is being read. Such an image sets up the notion that the parent who does not read books to her child while the child sits on her lap is somehow to blame for her child's lack of progress in literacy. However, it is important to consider the wide range of literacy practices that may occur in the homes of a variety of diverse children so that we can more effectively build upon the literacy experiences that children, from a host of backgrounds, do bring with them to school (Thomas, Fazio, & Stiefelmeyer, 1999).

It is critical for teachers to keep in mind that most parents-regardless of income level or cultural or ethnic background—value education for their children. However, different parents may have differing perceptions of what it means to be literate, and they may not always be aware of the most effective tactics for them to take to foster literacy with their child. Several researchers have reported the high value placed upon literacy by many low-income families. For example, DelgadoGaitan (1987) found that the possibility of a better education for their children was cited as a major reason for Hispanic immigration to the United States. Taylor and Dorsey-Gaines (1988), studying low-income parents whose children succeed in school, noted extraordinary sacrifices and efforts being made in the interest of the child's education, despite the parents' limited educational levels. Finally, Fitzgerald, Spiegel and Cunningham (1991), in a study of low- and high-income parents, report that low-income families rated the value of education even higher than the high-income families.

Another important difference among parents concerns exactly what they view literacy to be. Goldenberg, Reese, and Gallimore (1992) found that low-income Hispanic parents help their children to acquire literacy mainly by emphasizing letter names and spelling-sound correspondences. Similarly, Baker et al. (1994) reported that low-income parents spend much time explicitly instructing their children in the work and practice elements of reading, whereas middle-income parents use a more playful approach, through stories and play. Literacy is presented and modeled as an enjoyable pastime and an important lens through which to understand the world. Knowing that this difference might occur, it seems that it would be helpful to emphasize to all parents that children who find literacy learning painful tend to avoid books and reading, while children who learn to enjoy reading for its own sake are more likely to ask for books and read recreationally, thus becoming more successful (Baker, Serpell, & Sonnenschein, 1995).

Teachers should be aware that every parent participates in some sort of literacy activities with their children. True, some parents may have problems reading and writing, or English may not be their first language, but nearly all still engage in a wide range of literacy activities in the course of their daily lives. In his data, Barton (1997) found many examples of parents experiencing difficulties with written communication who nonetheless kept diaries, maintained household accounts, wrote poetry, took phone messages, and sent letters. These parents dealt with shopping lists, bills, forms to fill out, recipes, junk mail, and TV schedules. Such parents should not be perceived as unintelligent people living in barren homes "waiting to be filled up by literacy," as the media would often lead us to believe. For the most part, adults who admit to problems with reading and writing are ordinary people leading ordinary lives and, if they have children, like everyone else, they are deeply concerned about their child's education.

Educators are beginning to move beyond thinking of just the mother in a family as the key partner in literacy with the schools and are now including the father, siblings, and the cadre of relations and family friends that children often cite as important in their literacy lives. Also, focusing exclusively on parent-child relations excludes important social agencies and community resources that may enhance literacy behaviors. Educators are also moving beyond the notion that parents should only read to young children and recognize that homes are significant places for a myriad of literacy practices to occur from infancy all the way up to the teenage years, and that parents can often learn from their children too. Literacy learning can be a symbiotic event within families. Finally, rather then asking parents to replicate what we do in schools, we are now trying to support the practices parents are already doing, in their homes, to promote literacy (Barton, 1997).

The Initial Connection

Good communication right from the start of the new school year is essential between the home and the school in any literacy program. Because most educators are aware of this need, many schools provide several parent-teacher conference days when teachers are free to talk with the parents about the progress of their child. The parent-teacher conference can be a fruitful time for the teacher to explain to the parent or caretaker, in clear terms, the components of the literacy program and how the child is progressing within the program. Moreover, it is the ideal time to let the parent or caretaker know how much their partnership is needed to reinforce the notion upon which a comprehensive literacy program is based: that literacy activities are important in the world and enjoyable. After explaining the literacy program, many parents will want to know how they can help their child at home.

It is a truism that parents are concerned about their children, but they often need reassurance that their concern is appropriate and that they possess the ability to take part in the partnership. The following points are helpful to consider in this regard:

1) Set up the conference with the comfort of the parents in mind. Rather then sitting behind a desk, as an authority figure, choose a setting in which all adults can sit side by side to create a friendlier tone.
2) Understand that parents and caretakers have a right to their anxiety. It is quite normal for them to wonder how well the child compares with his or her peers.
3) Inform parents about their child's strengths and limitations while sympathizing with their concerns. "Don't worry" is a phrase that has little value and should be avoided.
4) Refrain from being judgmental and, instead, actively listen to parents and caretakers, always seeking common ground. Instead of blaming them for what may not have occurred in the home, praise them for their concern and desire to help, engendering a feeling of true partnership.
5) Focus on specific constructive suggestions rather than vague generalities. "Your child needs help hearing beginning sounds in words" is much more helpful than "Your child is not ready to learn to read."
6) Discuss the child's progress using examples such as actual progress forms or samples of the child's work.
7) Accept the parent's questions and provide clear, honest responses.
8) Thank the parent for attending and let the parent know that you are available for additional conferences if there are further concerns.

What brings the parent to school? When both the school district and individual schools make a concerted effort to let parents and caretakers know—we want you, we need you and we have valuable information to share with you about your child's literacy needs—they will come, if flexible scheduling makes attendance possible.

Therefore, schools must take a positive approach and work with the strengths and needs of the families involved. Local radio and television stations as well as newspapers can help publicize the need for caring adults to meet with their children's teachers. In addition, the Chamber of Commerce can be asked to send letters to all area employers requesting that they release parents and caretakers from work to attend partnership conferences.

Conference scheduling is vitally important. Scheduling strategies should include not only a variety of scheduled times for all the parents, but also scheduling time for teachers to conduct the conferences. It is essential that teachers provide some conference times early and some late to accommodate those parents who cannot come to school during the regular school day. In order for this arrangement to be successful, the district's administrative unit must be fully committed to the partnership concept and arrange for the teachers to receive compensation for their efforts.

Conferences can be productive and pleasant for both the teacher and the parent if the teacher follows a few simple procedures. Begin the conference with a friendly and relaxed greeting to the parent. Adopt the tone with the parent of a friendly acquaintance, reinforcing the idea, in every way possible, that you are both on the same team. If the parent speaks little or no English, arrange to have an aide or community member to translate, or invite an older English-speaking sibling to perform this important task. In advance, ask the child to teach you a few polite phrases ("How are you?" or "I am very pleased to meet you.") in his or her home language to make the parent feel welcomed. Begin and end the conference on a positive note, addressing what is positive and unique about the child. Focus on specific constructive suggestion rather than vague generalities. Discussing the child's progress using actual progress forms or work samples can help in this regard. Finally, offer the parent specific activities that can be done at home, such as those offered in a later section, to help the child with any deficiencies or to enhance reading interest and proficiency.

What Parents Should Know About Reading in the Early Grades

The most commonly heard query during parent conferences crosses all ethnic, cultural and socioeconomic levels. It is the question,"What can I do to help my child become a good reader?" And while the above section offers parents a general idea of what practices research has found to be helpful, parents are asking for some very specific activities that they can do with their children to help them succeed in becoming literate. In the past, teachers often suggested that parents drill children on the alphabet or help them with the sounds of letters. Many well-meaning parents became convinced that formal teaching of skills would help their children get a head start. The newer research on literacy suggests otherwise. When parents provide a rich literacy environment at home, teaching reading and writing becomes easier for both the teacher and the child at school. Because most children do not enter public school before age five and preschool before age three, if at all, schools need to take the responsibility of disseminating information in the community that parents can follow at home.

Parent Workshops

For parents willing and able to attend workshops, there is important information as well as several activities they could undertake with their children that would help to create children who can decode and comprehend well, and also enjoy reading. Many teachers have had great success with conducting two or three workshops each academic year, each focusing on one activity. Refreshments or a parent potluck draws many parents and a format of simple instructions for the activity followed by practicing the activity in small groups ensures the confidence to try the activity at home with their own child.

Introduction —
Reading Aloud to and With Children

A most critical activity for parents is to read to and with their children. As research has shown, children who read early generally come from homes in which reading materials were readily accessible. Additionally, early book experiences provide children with at least three major concepts about books. These concepts—ultimate reasons for parents to read aloud to their children—should be shared with parents in a straight-forward way. First, children begin to see reading as pleasurable, as they associate this activity with warm quality time with parents or caretakers. Second, children learn about language and how it works. Through listening and sharing common language patterns, children imitate new ways of communicating. Finally, children begin to understand that the purpose of reading is to make personal meaning from the printed page; that a message is communicated through each sentence, story and book. All these concepts are important foundations for literate beings.

Suggest to parents that they provide library corners for their children, preferably in their bedrooms. Books need not be new, but can be purchased at garage sales or borrowed from the public library. The book corner does not need to be large and can even be made from cinder blocks and old wood. Virtually every room can hold reading material that is visible and accessible. Even before children are crawling or walking, books can be brought to their cribs and playpens; waterproof books are available for bath time.

Parents need information on what books are appropriate to read to their children. Figure 1 offers suggestions for what parents should look for at every grade level from birth to grade three.

Age	Type of Reading Material
birth-1	Vinyl or cardboard books; colorful, large pictures; rhymes, e.g. *Mother Goose* (Candlewick, 1996)
1-2	Washable cloth; animals and familiar objects; let child turn pages, e.g. *Pat the Bunny* (Childs Play, 1995)
2-3	Nonsense, funny books; simple informational books; encourage child to pretend to read, e.g. *Henny Penny* (Galdone, 1984)
3-4	Longer stories, fairy tales, folk tales; how things work; repeated readings, e.g. *Mike Mulligan and his Steam Shovel* (Houghton Mifflin, 1977)
4-5	Variety of books, informative, alphabet predictable, wordless that tell a story, e.g. *Time Flies* (Crown, 1994)
5-6	Predictable books where child can chime in; language play, e.g. *I'm a Caterpillar* (Scholastic, 1997)
7-9	More plot development; informational; take turns reading, e.g. *Hattie and the Fox* (Bradbury, 1987)

Figure 1.
(adapted from Neuman & Celano, 2001)

Encourage parents to vary their tone and read in a soothing voice at an even pace. For nonnative English speakers, invite them to read in their home language.

Following are two activities to help parents further children's literacy as they read to children.

Activity #1 — Questioning

As parents read to children, they may make comments or ask questions about the pictures and text; for example, a parent might make a comment about a feature of a story character or ask the child what he or she thinks will happen next in the story. Parents can also contribute to reading comprehension if they follow up reading by discussing and asking questions about the story or informational content. What, when, where, how, and why questions deal with the story or informational content, but they also can be used to infer relationships in the text. In the workshop tell parents to also include "Why do you think...?" and "What if...?" questions.

After mentioning the importance of questions, begin by brainstorming a list of the above kinds of questions. Then give every attendee a short story containing several paragraphs. Have parents contribute appropriate questions for each paragraph. Praise correct answers. If a contributed response is not appropriate, accept it and then rework it into a useful question. Example of a inferring question: A parent offers, "Did the boy go into the woods?" (The answer is given in the paragraph). The answer can be accepted and then slightly modified into, "Why do you think the boy went into the woods?" The child must consider the information, compare it with what he or she knows of the world, and create an answer.

Activity #2 — Parent Think Aloud

Parents who already read with their children can learn to extend the activity into a comprehension-modeling practice by utilizing Think Alouds. Explain to parents that this activity is, as its name implies, one where the parent shares aloud everything she or he is thinking as a paragraph is read, including making predictions ("I bet Jerry will ask for his dog back."), imaging ("Ooh—that meadow reminds me of the field behind Mr. Darrows farm where we used to hike, remember?"), generalizing ("So I guess these polar bears hibernate like the grizzlies we were reading about."), and using the context to figure out the meaning of unknown words ("It says the pancakes were *huge* and Tiny had a hard time finishing them. Since Tiny had a hard time eating them, I'll bet *huge* means really big.") Using adult passages, model how a parent might do a think aloud by slowing their thinking way down and offering a window to the brain for the benefit of the child. Invite parents to add their observations about the passage to yours, praising comments that would be particularly helpful for children to have modeled. Pass out a passage to each attendee and have pairs of parents practice reading a paragraph out loud, sharing their meaning-gaining thought processes as they do so. Have them switch roles after each paragraph so that both parents get a chance to practice the technique. Finally, encourage parents to try this activity at home as they are doing shared reading. Explain that the children can be invited to share their thoughts to those of their parents as they get the gist of the activity.

Other Suggestions for Parents

Most of the above information and activities focus on books; however, not every person has to read only books to be considered literate, nor are books the only tools possible to encourage children to read. Following are other ways parents and caretakers may help promote reading at home:

- Read cereal boxes, menus, place mats, street signs, coupons, junk mail, and other forms of print together
- Point out and read familiar signs such as "K-Mart," "Yield," "Exit," "Beware of Dog!" and so forth.
- Play guessing games such as "I spy with my little eye something beginning with a "B" or a /b/ sound.
- Sing songs, nursery rhymes, raps, and chants.
- Share newspapers and magazines at an appropriate level and encourage children to pick out certain words from advertisements.
- Provide a quiet time each evening, when TV and video games are not allowed, for the child to read.

Other Communication with Parents

Besides the regularly scheduled conferences and workshops, teachers can keep parents informed in a variety of ways. One way is through a monthly newsletter. An attractive, simply-written flyer sent to parents can help explain the child's literacy program and help to avoid misunderstandings and confusions brought about by a zealous media often providing negative press about what goes on in the schools. The newsletter can also be a vehicle through which to convey or reiterate the suggestions for home reading previously discussed. Additionally, any questions that parents have been asking, or those that frequently come up every year, can be addressed in the letter.

Progress notes are a more personal way to keep parents informed about their child. At frequent intervals, short notes can be written about individual children in a positive, congratulatory tone when a child has been uniquely successful in a literacy activity, asked an incisive question, or written an specially interesting piece. Such notes might also include a few open-ended questions for the parent to ask the child about some story that has been read in class, or some vocabulary to discuss with the child.

A special idea to bring parents to the school for an occasion other than the formal parent-teacher conference is the Reading Festival. Any number of activities can be planned that have the parents, children, and invited community members coming together to share favorite books, articles, and stories. Parents can be asked to bring in their favorite children's book to read with the class, if they wish. Community members—such as fire fighters, sports figures,police officers—can be invited to read with small groups of children, or choral reading can be done with adults and children taking appropriate roles. Art activities can be planned, such as making and playing reading games, or constructing dioramas or murals in connection with a favorite book. Such a festival works well in collaboration with a Book Fair. The Book Fair can be organized with the help of a local book store or a children's paperback book company such as Scholastic.

Family Literacy Programs

The ways in which parents interact with their child is paramount to the child's literacy abilities, but some parents may require more assistance than that which could be offered by teachers in a traditional school-based workshop. Research is increasingly supporting the notion that parent-child interactions are often more complex than just reading to children and providing them with literacy materials. In fact, there is evidence to suggest that simply telling a parent to read to a child may even be counter-productive and lead to quite different behavior than the teacher intended, depending upon the background of the parent (Mikulecky, 1996).

To address this growing concern, the federal government has begun to set up a series of family literacy programs, such as Even Start, designed to increase both the literacy skills of the parents and to provide positive strategies and attitudes for interacting with their child's literacy at home. Projects include speakers of English as a first or second language and are located in a variety of settings, such as libraries, schools, universities, or family centers. A wide variety of activities take place in these projects, ranging from discussion groups to activities for parent-child interactions, as well as direct teaching of literacy skills for the parent leading to the attainment of a high school diploma.

In literacy programs aimed at both children and adults, there are various perspectives on what family literacy should be. Most initiatives act directly upon the need most adult participants feel to help their children become literate, while many also stress the vital role of community in education. Additionally, family literacy, in general, provides the possibility of assisting adults in a way that need not be constrained by intimidating traditions of formal education and, instead, actually draws upon the existing funds of knowledge that each family already possesses. Most educators working with families realize that there is no single road to becoming literate and that they must seek the help of the parents to ascertain what positive practices are already occurring in the home.

Mikulecky and Lloyd (1995) have evaluated the impact of family literacy programs in five cities upon parent-child literacy-related interactions. After approximately six months in such programs, significant gains have been reported in such activities as parent-child home reading, visits to local libraries, quantity of literacy materials found in the home, and the children's independent literacy activities. For example, children's avowed reading of books and magazines increased by sixty percent to more than once a day. Morrow, Tracey, & Maxwell (1995) summarized the results of over thirty family literacy programs and found similar positive results. Their results supported a conclusion that such programs were correlated with more parental participation in school events and appeared to help their children not only to have a more positive attitude toward school but also to experience more academic success.

It appears that long term, community-based family literacy programs can be an important adjunct to the relationship the classroom teacher builds with the parent. The classroom teacher can support such programs by acknowledging that literacy is an issue whose domain is not exclusive to the public schools.

Trouble Shooting

Getting parents the help they need for general literacy interactions at home is the focus of family literacy programs. But what about parents with whom the teacher has been totally unable to communicate? Certainly, the value of the parent-teacher conference to discuss specific issues related to the literacy progress of pupils cannot be underestimated. Therefore, this section will address several factors that preclude some parents' attendance at any school functions.

Flexible Scheduling

Most schools have several parent-teacher days when the teachers are free to talk with parents about their child's progress. While this can be an ideal time to talk about the child's literacy, some parents work during the day and for various compelling reasons are not able to take time off to attend these important sessions. Since it is inappropriate—and impossible—for the teacher to evaluate the parents' priorities and work responsibilities, some schools try to rectify the problem with flexible scheduling. Having some conference slots later in the day or in the evening (with the teachers given the morning to prepare) has been helpful in many schools. Teachers who have adopted this flexible plan report being successful in reaching parents who had previously not attended conferences citing job conflicts.

Home Visits

Some parents and caretakers may be reluctant to attend any school functions because they feel uncomfortable in the school environment. They themselves may not have done well in school and for them anything related to school holds unpleasant memories—much as the dentist's office does to those who suffered painful extractions as a child. Too, parents from certain other cultural groups may hold the teacher in such high esteem that they may feel ashamed of being unfamiliar with the language and customs and fear embarrassing themselves in the formal academic environment. As these parents are most often the ones teachers most want to see in regard to their child's reading habits and attitudes, one suggestion is that the teacher initially goes to the family's home environment. A handwritten note or brief telephone call saying the teacher will be in the area on such and such a day and requesting to stop by for a chat is rarely refused. During this visit, nothing educational need be discussed, but the teacher should look for common ground with the parent, usually the adults' common care and concern for the child is sufficient. A warm and down-to-earth attitude by the teacher often forges an initial rapport that makes the parent's attempt to attend the next conference more likely.

A Common Language

A third barrier for parents is a tendency on the part of many teachers to use the technical "jargon" of literacy with the parents. Many parents refrain from attending meetings about their child because they hold the perception that they would not be astute enough to understand the teachers "educated language," and at times we are to blame for this concern. Perhaps in an effort to make the field of education appear as a true profession, we educators have acquired a large vocabulary of very specific literacy terminology. "Phonemic awareness" is one such term that might be better defined for parents more simply as "hearing sounds in words." Other literacy terms can also be discussed in laymen's terms, with the outcome being that the parents feel they are capable of understanding what the teacher is talking about and able to help. To invite parents to be true partners in the education of their child is to convince them they can communicate as equals.

Summary

There is a critical need for kindergarten-primary classrooms to be places that use children's home literacies as the foundation for literacy instruction. There is a similar need to communicate to parents and caretakers how much they are needed as valuable partners in their child's literacy growth. But it is not always appreciated just how much communication and sensitivity is required to make this relationship work optimally so that there is a true synergy between home and the school. Teachers often need to be the prime-movers, envisioning innovative ways to get the parents—from all cultural and linguistic backgrounds—to school, or in some cases, even visit them in their homes. They need to make parents feel at ease by talking to them in clear terms about the progress of their son or daughter and find ways to explain the most effective ways to reinforce the goals of a comprehensive literacy program at home. Teachers also need to be aware of current research that supports the notion that parents, regardless of income level or educational background, care desperately about their children's success in literacy and only need to be guided to the best practices they should use to augment the school's literacy program. Finally, teachers need to explore new Family Literacy Programs in their community that may offer possibilities for parents to not only learn to help their children read and write, but also further their own educational prowess. Such programs add another dimension to the partnership, letting parents and children know that the entire community sees becoming literate as a positive and worthwhile goal.

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Kindergarten Education: Theory, Research, and Practice
Vol. 6, No. 2, Fall/Winter, 2001-2002 – pp. 75-91

The Thinking Child: An Interpretational Research Study

Jackie L. Imbimbo

This is an interpretive study in a kindergarten classroom that looks at representational thinking in the construction of knowledge. Using theory building as the context in the acquisition of knowledge, the study focuses on the theoretical frameworks of Piaget, Vygotsky, and the Theory of Mind. The classroom teacher who conducted this study utilized science curriculum as a focus for examining the social, developmental, and cognitive processes that are involved in representational thinkers constructing an understanding of causal relationships through the construction and reconstruction of theories.

In the kindergarten classroom one often hears children explaining, "My mind told me"..."I just thought it"..."I was wondering"..."I was thinking"..."I saw it here" (pointing to their head)..."I figured it out." Kindergartners show an awareness of mental states that not only consider events, objects, and people, but are also within the context of the present, the past, and the future. One of the current schools of thought questioning children's awareness of mind and its functions is the theory of mind. The related research is on young children's awareness of their thinking processes.

Several of the researchers in this framework hold many of the tenets from the constructivist and sociohistorical perspectives (Astington, 1993; Wellman, 1990), while questioning and redefining some of the constructs concerning how young children view mind. One such construct is representation, which has been the focus of theory of mind research in early childhood.

Representation is defined as a two-fold paradigm. It is a mental state, a mental entity or product, such as thought, want, belief, or intention. It is also a mental activity or process that acts in forming the mental states of thought, want, belief, or intention (Astington, 1993). The theory of mind framework is in accord with constructivist views; we construct and construe the world (reality) with our minds. We do not have direct contact with the world. It is through the construction of our thoughts that we access reality. Thoughts are the representations constructed through our interactions with reality. The mind revises its interpretations as external and internal situations change (Astington, 1993). As Astington (1993) specifies, thinking re-presents the world; thus, mental states are representations of our interpretations of reality.

Kindergartners have a developing theory of mind that can be classified as understanding second-order systems. They have beginning concepts of the mind as an independent entity (Wellman, 1990). However, they have not completely internalized the concept that a mental representation of a single thing can be done in various ways (Wellman, 1990). Children of five and six years old only partially categorize

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JACKIE L. IMBIMBO is a kindergarten teacher at Austin Creek School in the Rincon Valley School District, Santa Rosa

subsystems hierarchically within a nesting framework, which requires reversability and conservation (Inhelder & Piaget, 1969). For example, two bananas (one subsystem) and a pineapple (another subsystem) are related to each other in that they are both fruit (a hierarchical representation). When asked to compare quantitatively the hierarchical system (the whole class) with one of the subsystems (Are there more fruit or more bananas?), the young child is not able to hold the hierarchical system in mind (conserve the whole) and reverse thinking to compare the whole class with a subclass; thus, the child compares the two subclasses, saying there are more bananas.

In spite of their lack of reversibility, kindergartners have some very sophisticated notions about mind. They are able to understand from a metacognitive viewpoint that they have their own opinions and not all people share the same opinions. They have a continually increasing understanding of differences and can understand that their perceptions may be uninformed. Kindergartners can make inferential representations in that they can construct a knowledgeable opinion free of the perception.

Wellman (1990) refers to this development of awareness as interpretive. Kindergartners are beginning to have a nascent understanding that the mind is active and constructive. The mind recognizes causal relationships, beliefs, imaginings, and can hypothesize and construe (Wellman, 1990). The five-year-old knows that she uses perception and communication to construct knowledge and that she can use different sensory modalities to collect information.

Wellman (1990) credits the construction of representations through interpretation as a theory building process. Theory building for young children matches the way in which they take in information. They focus on or regard single features of an event that can be construed as constructs. The kindergartner will slowly connect the constructs together in relationships, and it is in the connections that the meaning is made visible. For example, a kindergartner will take the empirical data of her reflection in a puddle and theorize that the sun shines in the puddle to cause her reflection; then she connects it to seeing her reflection in a mirror by theorizing that a piece of the sunlight got on the mirror to cause her reflection there as well. She has taken a causal-explanatory framework, inferred its meaning and generalized it to make it understandable and logical to herself.

As a result of studies, (Flavell, Flavell, Green, 1995; Hickling, Wellman, 1994; Justice, Powell, 1982), theory of mind advocates propose that if young children are given frequent opportunities in school to practice reflection, hypothesizing, inferential thinking, interpretation, and representation, they may acquire greater mental awareness and knowledge of their own and others' minds. This position strengthens and expands the constructivist assertions on development. Kindergartners actively construct their knowledge with representational thinking. However, because of their awareness of mind, they can be given opportunities to enhance their reasoning and reflection capabilities, within the context of representational thinking.

Proponents of theory of mind have recorded through their studies the relationship between certain constructs of the sociohistorical approach to development and the theory of mind position. One such study by Klein (1995) revealed that reflective discussion among children helped them to think about sources of scientific beliefs. The study found that as children learned how to plan through active social discourse they were more likely to understand critical evidence. In turn, if they understood critical evidence that revealed disconfirming evidence, they were more likely to change their beliefs. This is pertinent in how it relates to cognitive conflict, intersubjectivity, and the potential for cognitive change. Klein also found that there was a match between children's ability to explain their scientific thinking and other theory of mind tasks.

Boyes, Galperyn and Giordano (1993) relate the importance of incorporating theory of mind constructs into Vygotsky's theory on the zone of proximal development (ZPD). The ZPD is a dynamic interaction where children take an active role in "guided Participation" with adults or more capable peers. This role is defined as an "apprenticeship role" (Rogoff, 1990). Boyes, Galperyn and Giordano's conjecture addresses mutuality or intersubjectivity in the ZPD as the key element that ensures children success in deriving an awareness of other points of view when interacting with more competent peers. Initially this exchange of socially derived competencies would be tacit and then eventually become conscious. These researchers have found that interactions with mutual interest between peers can be directly linked to the development of social cognitive functioning.

These studies and theories have important implications for the classroom teacher. Education is always seeking ways to engage the young learner. We look at the viability of curriculum. We look at children's needs. We look at the needs of the culture. We look for balance. Now we need to look to the children and the thinking they do as they are learning. The research reported in this article investigates this aspect of children's thinking.

As a kindergarten teacher, this researcher wanted to find out what would happen if I began listening to and asking not what my students knew but what they thought. I wanted to learn about the relationship between the process children go through while they are learning and how they learn. What kinds of theories and understandings are constructed and reconstructed by kindergartners when the teacher provides opportunities for children to discuss their ideas with each other in an ongoing way? How is learning socially constructed and how does that construction affect children's theory building processes?

Studies have shown that when domain-specific knowledge is constructed with children in a collaborative way, they are able to develop higher modes of reasoning (Inagaki, 1992). Because of these studies I felt I had to narrow my focus to one specific area of the curriculum. I chose science as the context for the study because the effects of science are embedded in our daily life experiences and perceptions without children realizing it. Almost all questions kindergartners have can be connected to science because it is a way of explaining what happens in the physical world.

Before beginning the study I went to the primary sources of constructivist theory and sociohistorical theory to better understand the processes children go through to acquire knowledge, including the effects of the relationship between the group and the individual. Piaget (1970), who studied the stages of cognitive development, considered the acquisition of knowledge as "essentially active" and always driving toward equilibration or balance. Knowledge is constructed and reconstructed by the individual in a circular fashion, albeit recursive (Piaget, 1970). Development not only has a continual flow and movement, it is also uneven, or in a state of disequilibration. According to Piagetian theory, kindergartners think with a representational logic or pre-logic. As cognition develops through the child's constructions and reflections, concrete reasoning of logical operations, such as the relationship between subsystems, will also grow. This growth takes place through a process Piaget (1970) labeled as cognitive conflict. The child already has a cursory idea about what a seed is from life experiences of apples and oranges, and is usually told not to eat it. Then the child finds out that beans, nuts, and grains are also seeds, which she eats readily and often. This information causes a conflict, however brief, as the child restructures her knowledge to include some seeds you eat, some you do not. It will be a while before she fully understands the relationship among all beans, nuts, fruits, and grains, as well as the relationship they have with each other. This is the kind of thinking I was interested in because it is the kind of thinking that leads to reflective and abstract thinking. It is the underpinning of mathematical reasoning and literacy development. In Piaget's theory it is called reflective abstraction, which "has to do with differentiating schemes or subsystems and integrating them into a total system" (Piaget, 1985, p. 139).

The classroom is a complex social structure full of diversity while maintaining the matrix of the culture at large. Within this environment each child is developing cognitively, emotionally, and socially according to each unique timeline. The influence of the group on the individual and the individual on the group is a powerful component of development that underlies the strong relationship between the developmental theories of Piaget and sociocultural theories of Vygotsky.

Vygotsky (1978) and others maintain that the tools of culture lead human development. "Children's cognitive development is embedded in the context of social relationships and sociocultural tools and practices" (Rogoff, 1990, pp.7-8). In the dynamic, active, informal relationship between the individuals in the classroom (a formal institution), the social appropriation of the intellectual tools and skills of our culture are transmitted, thus becoming an important piece in individual cognitive development. This complex process is supported by the way language is a cultural tool and also functions as a sign. Language as a tool functions when children socially participate in the negotiation of cultural meaning. Language as a sign or symbol that structures thought forms functions when an individual child internally interprets and reconstructs meaning from socially negotiated processes. These processes mediate individual and cultural development in the zone of proximal development.

For the purposes of this study, I was primarily interested in how the

ZPD effected the relationship between the mediation of language as a tool and as a sign. As children interacted in discussion, investigative group activities, recording and reporting of findings through multiple artifacts would they become aware of their theory building practices?

METHODOLOGY

This study took place in an afternoon kindergarten class at a school with a shifting socio-economic population from middle class families to lower middle class. There were sixteen students in the class. They all lived in the surrounding neighborhood. The socio-economic status of most of the students' families was working class to lower middle class.

I initiated my study at the beginning of the school year. Everything was new to the children: the school, the classroom, the schedule, the adults, their peers, the curriculum. I anticipated that the format I used in the study would help to initiate a social-constructivist process that would set a climate for the classroom where theorizing, questioning, and opinion making were respected and valued. The study lasted four months through the beginning of January. The observations were conducted during different times of the school day and included nature walks and field trips.

Participant Observer

Playing the dual roles in the classroom as the teacher and researcher led me to investigate how best to operate without damaging the integrity of each role. I had to acknowledge that each role influenced the other in ways that were occasionally detrimental. For example, while I was listening to children respond and reveal their ideas to themselves and others, instead of recording the process as a researcher I wanted to step in as a teacher and take a more active role than the study demanded. However, there were many other times in the evening when I reviewed the daily transcripts of the students' theories that I discovered their questions and understandings at a deeper level which helped me as a teacher in directing our course of study. Ultimately, the participant-observer role I felt the most comfortable with was the full participant who "is simultaneously a functioning member of the community undergoing investigation and an investigator" (Glesne & Peshkin, pg. 40, 1992). By acknowledging that my role as the teacher could not be ignored but had to be integrated into the study helped me deal more readily with biases that role carries.

Data Collection

The methodology employed for this study included strategies familiar to qualitative research in an interpretive style (Corsaro, 1992; Fetterman, 1989; Glesne & Peshkin, 1992). I have reviewed and analyzed my study in this style, outlining it in three phases. The rational for this approach resides in the complex nature of coding for representational thinking behaviors from the multiple perspectives of constructivism, sociohistorical theory, and theory of mind. The key feature of the study was not how often a certain kind of thinking was displayed but how the thinking processes became more elaborate as seen in the growth of complexity in the students' theory building practices. By using an interpretive style, I have used a lens that includes my roles as a researcher and as a teacher to look for a meaningful account of the kindergartner's theory building processes.

Bartsch and Wellman (1995) interpret children's developing theories in the following way:

> Theories work by utilizing constructs that do not simply restate the idea but actually explain them. To do this work, theoretical constructs must be organized together in a system of relations that allow inferences at the theoretical level, which can then be applied back to the evidential level of phenomena. This process is characteristic of theories: phenomena are reinterpreted via theoretical constructs that, because of their organized system of interrelations, provide predictions for and explanations of the evidence. (pg. 164)

Using this definition of theory, I watched for the kinds of causal relationships the children were identifying, the types of inferential connections they were able to make, and the explanations they used to illustrate their ideas about the causal relationships.

The basic format in the study included class discussions, small group projects and investigations, and field trips. I used Fettermman's (1989) typology of questions, and Glesne and Peshkin's (1992) evaluations of questions as a guide. I used anecdotal notes and photos, student artifacts, and videotaping. The photos, slides, videotapes, and student artifacts were used for triangulation (verifying data with multiple sources) in small and large group discussions and interviews.

Class Discussions

Since the video camera sat off to the side of our group discussions, we addressed its presence, and I shared with the children that the camera helped me remember their ideas and comments. Slowly, the camera became an accepted part of classroom life as the children became active participants in our discussions.

In the early part of the study, I used what Fetterman (1989) refers to as survey or grand tour questions which are "designed to elicit a broad picture of the participant or native's world, to map the cultural terrain" (p. 51) as in "What is nature." For some class discussions I would prepare a set of beginning questions that addressed the relationships and connections in our current and ongoing investigations. From Fetterman's (1989) methodology I used structural questions such as, "What does a plant do to make more plants?" and attribute questions, "Why are seeds important to us?" These questions were used for open-ended inquiry so that the students might share and listen to the ideas of their peers.

Other class discussions took on an informal interviewing format and followed on the footsteps of class activities that promoted disequalibrium. In one example, as children entered the classroom and went to the group area, they found an array of sunflowers and magnifying glasses on the floor. Using the element of surprise in a class activity to produce cognitive conflict created a flurry of reactions including what the sunflowers and magnifying glasses were. A fourth type of class discussion was more like a formal interview (Fetterman, 1989) and involved a reporting format where students would share their products, research findings, or using their drawings explain their theories. All the participants took on the role of the interviewer and directly addressed their questions to the presenter. A beneficial generalization from this procedure showed in the growing interest the children displayed for one another's thoughts and opinions.

Small Group Projects

As part of the triangulation process, children participated in small group projects of their choice. Of particular focus were the multirepresentational processes that would allow children to explore their perceptions and ideas in concert with different media. One student provided an insightful moment when, thinking he was finished sculpting a tree out of ceramic clay, I asked if he would take a sculpture's perspective and walk around it to get a 360 view. To his astonishment he noted, "The back is not done!" The flat side of the clay tree produced a disequilibration and gave the student a new relationship between creating three-dimensional models and thinking about the physical qualities of trees.

Small Group Investigations

Small group investigations involved the whole class working in groups of two or three students exploring different material from nature or attempting experiments. There were ample opportunities for perturbations and cognitive conflict as the students had to socially construct experimental designs or investigate material. Because of the difficulty in recording all the disconfirming social and cognitive moments, the experiences of these investigations were later triangulated through discussions and the sharing of products.

Field Trips

The data collection for the field trips included video taping and photographing for slides and prints. The trips provided opportunities for novelty, spontaneity, and cognitive conflict within a social context. On one trip to a state park, the children drew the sights that were interesting to them. Later, they explained their interests through the pictures.

Data Analysis

Kindergarten children are accustomed to circle time as a place where socializing and focused conversation take place, so the study began here through a questioning process based on the children's earlier observations. As the study moved along and became more focused, the questions I planned honed in on reflective thinking and theory building. This time became a form for formal and informal interviewing.

Following Corsaro (1985) I analyzed the data from a theoretical perspective, a personal perspective, a teacher perspective, and a methodological perspective. The data analysis included examining the relationship between the kinds of questions I asked and the responses given. The following is an example of how I collected data.

October 16, 1997
Study 17
Data Collection: note taking, video
Partner Share on rug in group area
Whole Class
MN—Methodological Note; PN—Personal Note; TN—Theoretical Note, TchN—Teacher note, FN—Field Note

FN: On October 14 we went on a nature walk to collect leaves... Today I assigned partners.... As I passed out their collections I told

> the children they could share their leaves with each other.... I walked around, took notes, and asked questions.
>
> Next, Jennie says, "This is sharp and this one isn't," (holding up two different kinds of leaves). I ask, "Do you think they came from the same kind of bush or tree?" Jennie responds, "A different one, because this one's sharper than this one." After this Sally (Jennie's partner) holds up two leaves and pointing to the first one says, "This one's a smaller one and this one is bigger, and even this one's sharper than this one."

Figure 1 encapsulates the processes and agents involved in the nonlinear evolution of theory construction. The active agents influence themselves and each other through a variety of interactive and cognitive processes that produce change. The social processes take place in the social relationships of the classroom and the cognitive processes take place in the individuals. The social and cognitive processes influence each other as the agents come in contact, and they underlie and are embedded in the interactive processes that take place among the active agents as a group and as individuals.

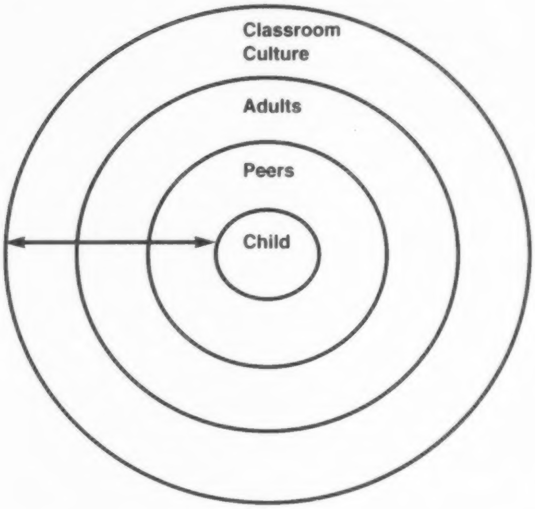
Figure 1 is a two-dimensional model that is attempting to explain a growing, organic, multidimensional, nonlinear process that was observed during the course of the study. From a constructivist perspective, the children build their theories based on the logical connections they are able to mentally construct out of their prior logical mathematical, social, and sensory motor knowledge in relation to their new experiences. These cognitive changes include the equilibration processes and abstractions. As the children engaged in experiences, they also communicated to themselves and each other, through a variety of languages, their ongoing theory building processes. It is through language (Piaget, 1962) that they can then translate their thoughts to themselves and others. As they translate their thoughts to others, mutual understanding of meanings is imperative. So for Piaget as sign (1962) and for Vygotsky as symbol (1986), language not only becomes the conveyer of meaning but also the instrument through which meaning can be expanded and reinterpreted.

Regarding these experiences from an interpretivist perspective, the peer group, with the teacher as facilitator, became the ZPD where negotiations for meaning through dialogue occurred. The peer group mediated with verbal language as well as the languages of drawing and models to explain, expand, and explore their ideas. These interpsychological processes produced and promoted intersubjectivity as seen in the cognitive shifts children made in their theory constructions.

Figure 1 also includes the recognition of the sociohistorical paradigm that the historical and cultural background of the children, teacher, and community impact ways of thinking and interacting that affect the theory building processes of the class and individuals. Using evolving theories as a way of depicting children's understanding of physical and social phenomena allows for a view that embodies a move from spontaneous to scientific concepts through interpretation and reinterpretation to reach an understanding that is personally and socially constructed.

Child, Peers, Adults, and Classroom Culture Serve as Active Agents in Change through:

- Interpreting
- Interacting
- Constructing
- Reinterpreting
- Reconstructing
- Theorizing



Social Process

- Zone of Proximal Development
    - Negotiations
    - Mediation with tools
    - Interpsychological Processes
    - Intersubjectivity

Cognitive Process

- Equilibration
    - Accommodation
    - Assimilation
        - Perturbation
        - Compensation
- Reflective Abstractions
- Logical Mathematical Strategies
- Social Strategies
- Sensory Motor Strategies
- Intrapsychological Processes

Figure 1. Theory construction and the move from spontaneous to scientific concepts.

The initial phase of the study became an invitation for children to explore what they knew and observed about nature. During this period the students communicated their background knowledge to their peers, while I listened for the different themes and interests that emerged. Clearly, the knowledge that was shared in the initial phase was based on the students' constructions prior to entering kindergarten. As such, this knowledge and the typology of language and thought the children used to share it became a baseline for the study.

In the second phase of the study, the development phase, the students moved into collaborative investigations of the relationships among plants, leaves, and seeds, with secondary connections to people, animals, and fall. As the students experimented, investigated, explored, and constructed, they shared their spontaneous concepts and questioned the scientific concepts they were exposed to in a reciprocal manner.

The final phase, the culmination, shows the generalizations of theory building behaviors the children incorporated into other investigations. Instead of ending with the theories the students developed about the nature of plants, the culminating phase of the study highlights the recursive qualities that exist in knowledge construction. With their budding theory building practices, the students inherently sought out the relationships between and attempted to construct theories on rain and puddles, reflection and puddles, evaporation and puddles, and reflection and shadows.

Coding

I coded for cognitive conflict, spontaneous and scientific concepts, part/whole relationships and class inclusion, empirical and pseudoempirical evidence, reflective abstractions, mediation, ZPD, and theory building.

The following is a coding example for set relations as defined by part/whole relationships and class inclusion.

Study 1, video
Whole Class Discussion
Question: What is nature?

Martha: Animals
Michelle: You clean up everything to make it beautiful.
Mitch: Tiny animals, tiny little ants, tiny things
Jenn: If you clean up the whole world it will be beautiful.
Rob: Big, fat elephants
Chuck: Pincher bugs
Janie: I think it's leaves and trees.
Kerry: Being friends
Rob: Sharks
Sally: Butterflies

Martha's response shows recognition of a sub-set relationship to the whole. Other children (Mitch, Rob, Chuck, and Sally) who follow her lead name specific groupings of the set of animals without necessarily recognizing the part/whole and class inclusion relationship nature-animal-horse or horse-shark. Michelle intuits a relationship between ecology and nature, while Janie sees nature-plant life. The social construction among the children is in its early stages while they share naming, listing, categorizing, and association strategies with each other. Jenn and Kerry exhibited spontaneous concepts.

The following examples are taken from a 'why question' and spontaneous and scientific concepts.

Study 4, video
Reports on nature drawings

The following is a class meeting where volunteers showed and described their drawing of what they considered to be a part of nature. They explained to the group why it was a part of nature, and the other children were able to ask the presenter questions.

Christy: Butterflies (holds up picture to show others)
Jessie: Why do you think butterflies are part of nature?
Christy: Because all animals are part of nature.
Rob: This is a rainbow.
Teacher: Why is it a part of nature?
Chuck: Because God promises you he will put rain down.
Lynn: Because it rains then a rainbow comes out.
Michelle: These are sharks in water, this is the daddy, this is the mommy, and this is the kid.
Rob: Why is sharks part of nature?
Mark: Because they kill other animals.
Christy: Because they are animals.
Jessie: Sharks, they live in water and they eat fish.

By building a knowledge base of nature's properties through justification (answering why questions), the children share their theories based on spontaneous concepts, scientific concepts, and empirical observation. Christy insists that all subsets of animals belong to nature, and I have coded her comment as a scientific concept. Chuck reasons that it rains when God ordains it, and I have coded his idea as a spontaneous concept. Lynn is an empiricist: rainbows follow rain. Mark's empirical observation exhibits partial knowledge, based on prior information. Christy is categorizing. Jessie's comment exhibits scientific concepts.

The following dialogue taken from the first whole class sorting activity shows the theory building that is nested within the classification processes that take place in sorting.

Study 10
Whole Class Sorting Activity
What is from nature and what is not

We did not begin the activity with the concept of sorting or how we were going to sort. We began by identifying and describing the objects we had collected. Then we looked for similarities and differences. In the following we are studying a crayon and a plant.

Teacher: Which one of these things comes from nature?
Students all point to the plant.
Mark: The stuff that grows
Martha: The plant
Teacher: Where does this come from (holding the crayon)?
Jenny: A workshop
Chuck: A factory
Kerry: A store

The children pointing to the plant indicates hierarchical classification, as does Martha's verbal answer. Mark's comment shows an emerging and as yet untested theory about the properties in nature. His proposal reveals the ability to see a relationship between nature-plants-things that grow.

Results

Initial Phase

As a group, in the beginning of the year, the kindergartners were the most comfortable with their personal sharing of empirical and causal experiences. The children's sharing consisted of short explanations and associative thinking. The initial phase of the study highlights the way in which representational thinking works. When prior knowledge based on spontaneous and scientific concepts already in place was coupled with empirical and causal experiences that were provided through the classroom, the children were able to apply what they already knew to what they were being presented. While representational thinking is the process of naming and identifying properties in objects and experiences, it also leads by inference to intuiting the relationships between these objects and experiences. Intuitive thinking is the unspoken aspect of thinking. It is here that the "logic" or the "theory" is built that stands behind the naming and identifying properties in representational thinking. As theory it explains how the world works. It does not see the whole relationship but parts of it and, as such, tries to make sense, or build a theory, of the whole based on the part. Cowan (1978) refers to this as the intuitive thinkers propensity to focus on one feature or variable at a time to the exclusion of other variables. This making sense using one feature at a time is the theory building that was apparent at the beginning of the study. The children listened to each other explain their theories as a stimulus to what they were interested in, could associate with, and not to accommodate new information but to confirm what they already theorized.

However with the advent of the group dialogue and shared experiences theories are challenged and children are exposed to new ways of thinking about things. It is through the classroom experiences with pre and post discussions that the children began moving from naming properties to questioning processes. In this way they began to question their own theories about what nature is, how things grow, as well as what grows. The classroom experiences included drawing the properties of nature as a tool for sharing with others, field trips to gather, as a group, more information on nature's properties, and painting and sculpture as a way to express the features of a tree or how trees change.

Following a discussion on trees and leaves, the children expressed an interest in learning how leaves change color, what the veins are for, why leaves fall, how they grow, and the variety there are. This indicated a shift from using dialogue to confirm their existing theories. Representational thinking looks at one variable at a time to explain phenomena, but, as the children became aware of disconfirming evidence and multiple points of view, they began to question their current theories and push for more variables to help them reinterpret and explain what they understood. This process is the building and rebuilding of a theory.

Developmental Phase

The general features that distinguish the initial phase of the study from the developmental phase include a shift in the students' investigations to more complex problems, collaborative small group work that required consensus and evaluation, and the application and synthesis of multileveled experiments. The children engaged in careful observations of a variety of leaves through detailed drawing. They participated in creating a leaf graph for communicating a sorting activity to others. They did experiments on leaf color. They studied seeds and the role they play in plant life.

Study 39, video
Class discussion

Teacher: Why are seeds important to us?
Mitch: Because they grow vegetables.
Maya: 'Cause they grow plants.
Katie: To make your garden look pretty.
Michelle: They grow flowers in the garden.
Mitch: Because they grow carrots, and potatoes, and fruit.
Jessie: Because they grow fruits that you can eat.
Rob: All kinds of fruit.
Chuck: All kinds of vegetables.
Christy: Because some seeds grow into trees.
Teacher: Why is that important to us?
Christy: Because trees give us air.
Teacher: Are seeds important to anyone else, besides us?
Janie: Squirrels?
Mitch: Because there are walnuts and acorns for them to eat 'em.
Christy: Seeds are good for chicks because they like to eat 'em.
Jessie: Animals like seeds, mice.
Katie: Deer like seeds.
Teacher: Why?
Katie: Because seeds grow into flowers and they can eat the flowers.
Teacher: What does a plant do to make more plants?
Christy: When it grows the seeds blow away in the wind, then it lands and grows a new one.
Mitch: The roots get bigger, the seed goes in the ground, and then the root comes out and the seed gets a little bigger, then a little flower comes out and a little vine comes out of the seed and then more and then more.
Mark: The plant spreads out and the roots (stem, branches) go up and the roots go down (repeats two times), and then the plant gets bigger and bigger.

In this discussion the children address "why" and "how" questions, which demand inferential reasoning that may be based on empirical evidence but must take a theoretical leap to make a relationship connection. The children are constructing theories that can be wrong or incomplete and will undergo reconstruction as they continue their process of development and learning. However, provided with opportunities for making this level of thought visible through investigating, discussing, and reflecting on their own and others' theories, the children have developed some sophisticated concepts. Bartsch and Wellman (1995) so state, "Theories provide a lens for exploration not just explanation" (p.64).

The primary themes that emerged in the relation between people and seeds is our dependence on them as a potential food source, the emotional value of enjoyment gained through their products in fruit, vegetables, and flowers, and the esthetic enjoyment they can bring to us through gardens. The children recognized the relationship between plants and seeds, "Cause they grow plants," and plant life and oxygen as seen in Christy's connection that seeds grow trees and trees give us oxygen. Katie made the connection that seeds become a food source for animals because they grow into flowers that deer eat. The children are building their theories from their recognition of part-whole relationships. Subset groups of flowers, fruit, vegetables, and trees all grow from seeds. Seeds are the connection between these subsets, and they are all hierarchically classified as plants.

Culminating Phase

The children have generalized the rituals and format for the class theoretical discussions to include all manner of inquiry in different curricular areas and have also begun voicing their opinions on many classroom management issues. Jessie and Michelle asked if we could study puddles; how they get bigger and smaller. Sally wanted us to study where rain comes from, and Bill wanted to find out how a reflection gets in a puddle. Janie decided that when there is a disagreement at outdoor playtime the children involved should get into a group to discuss it. When there is a disagreement on how something should work, there is always a student who says, "Let's vote on it." The class is showing a high tolerance for all forms of ideas, and the shyer ones are coming forth with their thoughts. Rob was a quiet child during most of the discussions during the fall semester. Now he has led the entire class on an inquiry of what makes volcanoes erupt. The children show a high awareness of their thought processes through stating, "I have a question," "I have a connection to make with...." They are able to take their nascent theories on nature that they have collected in class studies and are connecting them in more complex ways to elaborate and expand their current theories. Their theories thus become an avenue for further exploration as well as explanation. The classroom culture supports and encourages the children's dialogues, and they have become comfortable enough to directly disagree with one another in the spirit of the exchange of ideas.

The move from spontaneous to scientific concepts is not a linear one. To understand how children construct and reconstruct their theories about the world, we need to understand how they move back and forth between their spontaneous notions and the scientific knowledge they are acquiring. This is the theory building process. As the child is confronted with disconfirming evidence, she has the possibility of rethinking her concepts. This rethinking is the theory building process. Representational thinkers mix and match portions of their spontaneous and scientific concepts, replacing and trying out their theories to see if it makes sense to them. Kindergartners need to be able to represent these "theories in process" in a variety of ways that will encourage them to reflect on the concepts they are pursuing. The multiple representations will provide them with avenues for clarification, modification, and making connections. As all of this is a part of theory building, the theory becomes the vehicle that is constructed and used by the child as she works at equilibrizing scientific concepts in ways that are logical for her.

If children do not have the chance to represent and verbalize this process in ways that are meaningful to them, they lose opportunities for acquiring strategies to engage in reflective reasoning, hypothesizing, and inferential thinking as independent and competent thinkers. Certainly, most children move from spontaneous to scientific concepts as they develop and reconstruct their socially acquired knowledge. However, without the teacher intentionally supporting and scaffolding ways in which children can practice and see themselves as independent, reflective thinkers in the classroom culture, the cultural message becomes: knowing rote answers is a highly valued and sanctioned activity while problem solving, creative thinking, hypothesizing, and reasoning are not. Theory construction, as a consequence, is unexplored and invisible in the process, and I propose that this reinforces shallow, surface, rote thinking.

What became apparent in my study is the difficulty in writing about processes that are always in flux and movement and are never fixed points for intuitive thinkers. The assimilation and accommodation processes reflect such a relationship. Taking Bartsch and Wellman's (1995) position that theories are for exploring as well as explaining, we can see how the representational thinker moves between assimilating and accommodating as she ponders her theories, makes changes in them or steadfastly holds on to them as the only possibilities. As a researcher, I observed on many occasions the absolute tenacity with which children hung on to their theories in spite of the disconfirming evidence they faced. For Mitch to keep his position on rocks, he insisted that people made rocks out of cement even when we researched rocks forming out of volcanic eruptions. Lynn felt there was no logic in the higher mountain and lower mountain argument to explain where snow falls. To her a mountain is a mountain and snow should fall on all mountains if mountains are the criteria for snow. As a teacher, I would not have known what concepts and experiences perturbated the students had I not provided the time and place for them to represent, express, share, and debate their ideas. The kindergarten classroom culture can promote the position that learning is an ongoing process, questions are worth asking and investigating, examining and connecting multiple ideas is feasible, and perturbations are exciting.

As the internal cognitive processes move toward equilibration and as the sociocultural knowledge expands from spontaneous to scientific concepts, theory building becomes the blueprint or plan sheet that is the result of the cognitive and sociocultural processes leading to empirical and reflective abstractions. Understanding these theoretical constructs as they relate to kindergartners' experiences in the classroom has helped me learn how to encourage, facilitate, question, and set a context for their interests. Without this theoretical background I did not recognize or know how to tap into the richness and diversity of thought that young children possess. As a teacher facilitating and sanctioning inferential and reflective thought as a peer group activity, I have observed children notice and appreciate the strategies they have acquired and intentionally build on them.

From my study I have learned that there are two driving forces that promote theory building: interest and cognitive conflict. If the classroom culture provides opportunities for students to express their interests through questions, activities, or statements, the teacher can then reflect on and consider with the children a context of study. As the study takes on a focus and direction, the teacher can support and promote the children's conflicting ideas, opinions, and theories, which allows them to face and deal with disconfirming evidence in the context of their peer culture. It is in these experiences that students come to the fore and actively engage in debate, questioning, and consensus. The cognitive conflict processes aid in theory building as children construct and reconstruct through intersubjectivity in the social domain and through assimilation and accommodation in the cognitive domain.

While the class discussions served as a mediating tool for the construction of theories, there were many other worthwhile activities that also mediated theory construction. It is important to consider the purpose and context of activities as they promote theory building for representational thinkers. The activities the children participated in were intended to create cognitive conflict through their experiences with disconfirming evidence, investigation for clarification, and exploration for discovery. The purpose of the activities was not that the children would ultimately know some fact; rather, the activities mediated thinking processes that would open up new possibilities and ways of making connections in relationships. The activities were the mediational tools as the children socially constructed ways of participating in the processes of experimentation, representation, and creation.

Conclusion

The kindergartners in this study have moved from a linear thinking perspective, answering why and how questions with "I don't know" to visibly considering the viability of their ideas as well as challenging different perspectives and asking for causality. Kindergartners use their representational thinking strategies to build theories that will help them construct knowledge that will be the foundation of their higher abstract thinking. While all children go through this process, they do not do so in an equal way due to many factors, including environmental. When children are not allowed the time, social group, and materials to explore their thinking, the quality of their abstract thinking is potentially sacrificed due to the lack of practice in guided reflection and questioning. This is why the kindergarten classroom becomes a significant arena for children to have the opportunity to learn about and reflect on their theory building practices.

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Kindergarten Education: Theory, Research, and Practice
Vol. 6, No. 2, Fall/Winter, 2001-2002 – pp. 93-103

What Do I Need to Know About Including a Young Child with Autism in My Kindergarten Class?

Steven E. Daley
Maurine Ballard-Rosa

Many kindergarten teachers are being asked to include autistic children in their classrooms. This artcle provides resources for these teachers to initiate their own learning about autism and Autism Spectrum Disorders. The article emphasizes a team approach for working with the autistic child, and members of the team include the classroom teacher, special education professionals, and members of the family of the autistic child. The article also emphasizes that no one practice or set of practices, or even a theoretical perspective, that is better than another because autistic children have a wide variety of behaviors, not all of which are behavioral. References to many resources and an annotated resources list are provided.

To learn, to grow, and to thrive, young children with autism need to begin their formal school careers fully included in kindergarten classrooms. When you believe this, the road to successful inclusion is effectively begun. Until then, it can be a difficult and bumpy journey, and often not successful for the child with autism, the family, the teacher, or the class. But successful inclusion is much more than simply accepting the child with autism as a member of your class. In order to effectively meet the needs of the young child with autism in your classroom, you may need to learn more about autism and about what works well in other classrooms. In this article we provide an overview of the defining characteristics of autism and Autism Spectrum Disorder (ASD), review research on effective educational practices with young children who have autism and ASD, and provide resources for teachers to initiate their own learning about this important topic. This knowledge, combined with your disposition toward inclusion, will lead to educational success for the young child with autism or ASD.

Can I Really Do This?

Kindergarten teachers are often asked to include young children with autism in their classrooms. While most kindergarten teachers consider this a reasonable request, successful inclusion of young children with autism into the kindergarten classroom takes a positive attitude, enthusiasm, flexibility, and it also takes work. Lots of work! As you head toward full inclusion of young children with autism in your kindergarten classroom, you will need access to information about autism, new skills to adapt the curriculum, consultation on managing the unique behaviors expressed by many young children with autism, and ongoing support from well-

STEVEN E. DALEY is an Associate Professor in the Department of Special Education, Rehabilitation, and School Psychology at California State University, Sacramento.

MAURINE BALLARD-ROSA is a Professor in the Department of Special Education, Rehabilitation, and School Psychology at California State University, Sacramento.

trained special educators to work closely with you over the entire school year.

There are several key issues for you to explore when considering inclusion of a young child with autism in your kindergarten classroom. These critical considerations are drawn from many sources, including selections from the growing literature on autism and from our ongoing clinical consultation with preschool teachers and early elementary teachers who work with young children with autism in the schools.

What is Autism?

Autism is a complex neurologically based developmental disability occurring more frequently in boys than girls. Usually diagnosed by age three, young children with autism are identified in the Diagnostic and Statistical Manual for Mental Disorders, Fourth Edition (American Psychiatric Association, 1994) as having:

- Impairments in social interaction, manifested by impairment in the use of nonverbal behavior, lack of spontaneous sharing, lack of socioemotional reciprocity, and/or failure to develop peer relationships
- Impairments in communication, manifested by delay in or lack of development of spoken language and gestures, impairment in the ability to initiate or maintain conversation, repetitive and idiosyncratic use of language, and/or lack of pretend play
- Restricted repertoire of activities and interests, manifested in preoccupation with restricted patterns of interest, inflexible adherence to routines, repetitive movements, and/or preoccupation with parts of objects (Wetherby & Prizant, 2000, p. 1)

Autism is one of several pervasive developmental disorders (including Asperger's Syndrome, Childhood Disintegrative Disorder, and Rett Syndrome) that are classified under the rubric of Autism Spectrum Disorders (ASD) (APA, 1994). There are many myths associated with autism: that it is caused by cold, rejecting parents; that all children with autism flap their hands, rock, and/or bang their heads; and, perhaps most significant, that children with autism cannot participate in regular elementary school classrooms.

Diagnosing autism requires an articulated set of assessment processes and may include input from several disciplines, including medicine, psychology, education, nursing, occupational and physical therapy, and social work. Diagnostic tools may include observations, direct assessment, behavioral checklists, parent interviews, and developmental history. There is not a single procedure to diagnose autism and ASD. It is important to note that a diagnosis of autism is not simply based on the presence of behavioral patterns commonly associated with autism (e.g. hand flapping). The information derived from a comprehensive diagnostic report can be a valuable tool for the classroom teacher. Information provided through reports and interviews with specialists who have worked with the child will help to inform your understanding of autism and, more important, the specific strengths and needs of the child with autism who will be included in your class.

Children with autism, like all children, exhibit a range of behaviors, and can learn to be successful in classrooms with typical peers if we can develop the tools for success! There is no set end point to describe "success" for a student with autism just as there is not a single definition to describe a successful kindergartner. As a kindergarten teacher, it will be important for you to note that every child with autism or ASD is unique and individual in behavior, strengths and limitations, learning style, and ability level. Remember, too, that in almost all ways the child with autism is just like other children. Success for a child with autism may require additional instruction, adjustments to the curriculum, or difference in approach. Success is not the same for every student in your class, and it is not the same for every child with autism. The main tool to ensure success is working together as a team with parents and other professionals to identify the unique needs of the child with autism and facilitate appropriate educational interventions in your kindergarten classroom.

What are the benefits of participation in early education for the young child with autism?

We know that many young children with autism improve in their communication and language use, social and behavioral skills with peers and adults, emotional responsiveness, motor and sensory skills, and overall cognitive abilities after participation in programs with carefully designed intervention practices (Rogers, 1999). The challenge is to translate knowledge about these "quality practices" into real life, everyday activities in the elementary classroom. It is through ongoing consultation with special educators and other members of the team that you will develop a sense of what works best with the child with autism in your classroom. The challenge is not so much the simple presence of the child with autism in your class, though this may be daunting. The real challenge in including a young child with autism or ASD is the process of sorting out how to meet the changing educational needs of the child and to develop individualized intervention strategies that may not be a common part of the teaching repertoire for most kindergarten teachers. This takes time and practice, and, through the course of the school year, your skills base will expand as your knowledge base deepens and your experiences with consulting specialists can support your ideas for intervention with the young child with autism or ASD.

In our ongoing work with teachers who are providing services to young children with autism in inclusive settings, it is clear that the classroom teacher needs the ongoing support of specialists to foster ongoing success for everyone involved. Your commitment to work with a child with autism in your kindergarten class is an important first step in your work with a young child with autism. The team-based support available to answer your questions, provide ideas, consider alternative strategies, and document successes are all critical elements of a successful year. An accumulating literature documents case after case of successful inclusion of young children with disabilities, including autism and ASD (Odom & Diamond, 1998; Rogers, 1999; Schwartz et al, 1998). While there are many myths about inclusion, the reality is that it can work very, very well (Cook, Tessier, & Klein, 2000; Sands, Kozleski, & French, 2000). For further discussion of the myths and realities of successful inclusion practices with young children who have disabilities, see Hanline and Daley (in press) and Cavallaro, Ballard-Rosa, and Lynch (1998).

What do we know about what works?
Research studies conducted over the past several years have addressed issues of successful programs and identified key elements that are common across these programs (Dawson & Osterling, 1997; Hurth, Shaw, Izeman, Whaley, & Rogers, 1999). Evidence is from developmentally based programs and behavioral programs. Though frequently subjected to harsh criticism, behavioral programs are not the cold behavior modification programs so often noted for a lack of sensitivity and use of harsh directives. Applied behavioral analysis incorporates the principles of behavioral learning but it may also be viewed as a set of robust teaching and management tools that can be useful as a way to organize and present materials, to teach systematic steps to a multistep task, to provide consistent and replicable directions, and to organize data on implementation of intervention efforts (see later section in this article on systematic teaching). Applied behavioral analysis is not inconsistent with developmentally based curriculum and materials so often used by kindergarten teachers. Applied behavioral analysis may be a useful approach to consider in providing systematic educational interventions for young children with autism and ASD in your class.

Programs represented in research on effective education and treatment of young children with autism and ASD include those using one-to-one teaching methods, group programs for children with autism, and inclusive program settings. These approaches vary depending upon the individual needs of the child and are not incompatible with the everyday activities of the typical kindergarten classroom. Across theoretical and organizational differences, some shared elements of successful programs have emerged. These six shared elements include early initiation of services, individualization, systematic and planful teaching, specialized curriculum, intensity of engagement, and family involvement (Dawson & Osterling, 1997; Hurth, Shaw, Izeman, Whaley, & Rogers, 1999). Each of these elements is briefly described in the following sections.

- **Earliest possible start to intervention.** It is now recognized that early intervention is critical (Guralnick, 1997). Hurth, et al. (1999) have reported that children who received appropriate intervention services earlier experienced significant developmental and academic gains. As early intervention services become more commonly available in all communities, it is also more likely that when a five year old with autism is placed in your classroom, the child has already been receiving intervention services. Your continuing educational interventions with the young child with autism or ASD will then be a logical extension of successful early intervention efforts with the child.
- **Individualization of services for children and families** is another key element of successful programs. Children with autism are successful when we engage them in activities that utilize their strengths (often visual), and focus on tasks that are meaningful for them (Prizant & Wetherby, 1998; Rogers, 1999). This sounds difficult, but with careful planning these children can fully participate. Kindergarten teachers natu-

rally recognize each child's unique and individual talents (Hanline & Daley, in press). Individualizing for a child with autism is no different than for typical children, it just requires knowledge, practice, and the ongoing support of the other professionals on your team.

- **Systematic, planful teaching.** This may look different, depending upon the theoretical or philosophical approach that you take, but it is difficult to argue with the logic of planning as an integral part of teaching (Arends, 2000). This area is especially important to consider and there are many approaches to provide systematic instruction to young children with autism (Handleman & Harris, 2001). In the resources section at the end of this article we describe 10 valuable resources you may find helpful in your work.

There are a number of teaching approaches that have been utilized with varying degrees of success with young children who have autism. Several approaches are generally categorized as behavioral approaches or as applied behavioral analysis and are represented in the work of the TEACCH program (Marcus, Schopler, & Lord, 2001), the Lovaas program at UCLA (Smith, Donahoe, & Davis, 2001; Lovaas, 1996), and the work of Koegel and Koegel at UC Santa Barbara (Koegel & Koegel, 1995). Sally Rogers' work in the Denver Model (Rogers, Hall, Osaki, Reaven, & Herbison, 2000) is based on developmental principles, but also incorporates behavioral strategies (Alberto & Troutman, 1999; Schloss & Smith, 1998). Other models and approaches that do not follow in the behavioral tradition include a Developmental, Individual Difference, Relationship-Based (DIR) model using the Floortime approach (Greenspan, 1999) and play-based approaches to educational intervention (Wolfberg, 1999). It is important for you to know about the approaches that have been successfully implemented to provide educational intervention to young children with autism and ASD (Guralnick, 1997). As the classroom teacher, you will need to work with the members of the team to craft a teaching plan that works well in your classroom. Each of the approaches cited here is clearly and fully described in the literature on autism and ASD. For a review of the literature in this area, see the Resources Section at the end of this article.

- **Specialized curriculum.** In order to address the language and social concerns of children with autism, successful programs often utilized specialized curriculum for "attending to elements of the environment, imitating others, language comprehension, use of language, playing appropriately with toys, and interacting socially with others" (Hurth, et al. 1999, p. 21). Activities in each of these areas can be identified and incorporated into daily routines for children with autism. It is important for you to remember that the young child with autism is in your classroom to learn and to thrive. But it is equally important to remember that this child is in your class to work on goals and objectives that may be unique and different from the other students in the class. Check the child's IEP (Individualized Educational Program) to determine what curricular modifications may be required.
- **Intensity of engagement.** Clearly, children need to be engaged in the environment in order for learning to occur. Many proponents of services for children with autism and ASD have argued that one-to-one direct instruction engaged in 20-40 hours per week is nec-

essary to promote changes in behavior (Handleman & Harris, 2001; Lovaas, 1998). However, successful programs have reported a wide range of hours of engagement across learning opportunities at home, school and community settings. One-to-one instruction, adult-led group instruction, activity-based instruction, instruction as part of daily activities, and children engaged independently in planned activities are all strategies that have been used successfully in varying amounts of time in different settings (Mastropieri & Scruggs, 2000; Miller, 2002). Again, it is essential that you have a good understanding of the issues, and intensity of engagement is an important one. A key element to consider is the idea that the interventions for the young child with autism need to be carefully fitted into the ongoing activities in your daily classroom life (Bricker, 1998). Striving to craft an educational intervention plan with the appropriate intensity of intervention is clearly a topic for you to discuss with the members of your team.

- **Family involvement.** The final element common across successful programs is family involvement. The literature is clear in citing family variables as important predictors of outcomes for young children with disabilities (Shonkoff, Hauser-Cram, Krauss, & Upshaw, 1992). Hurth, et al. (1999) described different types of family involvement in effective early intervention programs for children with autism, including active participation in team decision making, and implementing home-based strategies. It is no news to kindergarten teachers that when the home and school are communicating, children benefit. This is especially important for young children who have autism. A strong partnership between you, other members of the team, and the child's family will increase the chances for successful inclusion of the young child with autism in your kindergarten class.

What's the "best" intervention for a young child with autism?

In addition to the features discussed above, Hurth, et al (1999) reported that structured environments, developmentally appropriate practices, and intervention in settings with typical peers are elements of some, but not all, effective programs. We know that no one intervention method works for all children and that there is no one "best place" for intervention. When we talk of individualization, we mean a focus on the child's needs and learning style as well as the context for learning. We can individualize by embedding activities within the natural flow of the classroom (Bricker, 1998). The young child with autism may be a part of circle or small group activities; participation is scaffolded through cues and prompts, when needed. Inclusion of children with autism is not tied to specific materials; in fact generalization is promoted when we use materials that are frequently found in homes and schools (Schwartz, Billingsley, & McBride, 1998).

How important is a team-based approach?

Sound like a lot of work? That's where the team comes in. Inclusion support builds on a team of personnel, including the general education teacher, special education teacher, paraprofessionals, family members, and a variety of specialists (speech-language pathologist, physical and occupational therapists, behavioral specialist, school nurse, dietician) who might be needed to help plan goals and objectives that can be attained in the general education classroom (Dettmer, Dyck, & Thurston, 1999; Thomas, Correa, & Morsink, 1995). The success of the team depends on an open, effective communication process, clearly defined goals and objectives, and opportunities for troubleshooting when things are not going as planned. In our view the successful inclusion of a young child with autism in the regular kindergarten class is a team effort. No kindergarten teacher should be asked to simply include the young child with autism without also being provided with adequate resources so that the inclusion experience is a positive one for all involved. Kindergarten teachers are flexible, capable, reasonable, and hard working. But almost none of you received specialty training in autism, and no one should expect you to take on the added responsibilities without also providing the necessary additional team support to help you pull it all together.

What do I do next?

As you move toward inclusion of a young child with autism or ASD, we hope that you have many concerns and many new ideas. Clearly there are many considerations when including a young child with autism or ASD in the kindergarten class. Nothing, however, is as important as your willingness to fully accept the five-year-old who has autism or ASD as a member of your class. We hope that your commitment to inclusion is strengthened in knowing that there are many resources available to help insure that you, the young child with autism, the child's family, and the rest of your class, all have a great year together!

RESOURCES
on Autism and
Autism Spectrum Disorders

We invite you to review the materials listed here, encourage you to read widely in the area, and urge you to become well informed about autism and Autism Spectrum Disorders (ASD). There are many resources available to guide and direct your work with young children who have autism or ASD. We have selected several current books for you to consider, and we think these books will provide you with a solid foundation about autism and Autism Spectrum Disorders. We hope that these books will provide a good beginning for the uninitiated reader and an invigorating review for those of you already working in the field. Most important, your efforts to stay current in this area will richly inform your ongoing work with young children with autism and their families.

Building Healthy Minds
Stanley Greenspan
Perseus Books, 1999

Dr. Greenspan's work provides important insight and many new ideas to guide our work with young children who have autism and ASD. In this book, he describes six critical stages in the development of healthy, bright, and emotionally capable children. Floor Time, a unique and thoughtful approach to encourage overall social, emotional, and communication development in young children, is described in this book. For further information on young children with autism and ASD, you may wish to read another book by Dr. Greenspan: *The Child with Special Needs* (with Serena Weider, Addison-Wesley, 1998).

Autism Spectrum Disorders
Amy M. Wetherby and Barry M. Prizant
Paul Brookes Publishing, 2000

This book is a collection of chapters written by experts in the field and provides an excellent resource for teachers who would like to know more about autism and Autism Spectrum Disorders (ASD). The chapters in this reference volume will be valuable for teachers who are already working with children who have autism and ASD. This book will also provide a thorough grounding in autism and ASD for the teacher who is new to these topics. This is a very informative and useful volume, and we highly recommend it.

Teaching Children with Autism: Strategies for Initiating Positive Interactions and Improving Learning Opportunities
Robert L. Koegel and Lynn Kern Koegel
Paul Brookes Publishing, 1995

This edited volume provides rich and detailed information that will be helpful to classroom teachers who work with children who have autism and ASD. This book also provides a good overview of behavioral interventions that have been successful in the education of children with autism and ASD and reviews related educational issues. Behavioral approaches are a central theme in most successful educational interventions, and this book will provide you with a good grounding in this important area.

Targeting Autism: What We Know, Don't Know, and Can Do to Help Young Children with Autism and Related Disorders
Shirley Cohen
University of California Press, 1998

In this volume, Dr. Cohen provides a well-grounded, thorough, and informative description of autism and related disorders. When you finish this well-written book, you will have a rich and detailed understanding of autism. Every teacher of young children with autism should read this book.

Thinking in Pictures and Other Reports from My Life with Autism
Temple Grandin
Vintage, 1995

This book is a classic in the literature on autism. Temple Grandin is an accomplished animal scientist, a veterinarian, and a woman who has autism. In this book she provides us with an insightful and highly readable description of autism. Her wisdom, her insight, and her experience will inform your work with young children who have autism and ASD.

Preschool Education Programs for Children with Autism
Jan S. Handleman and Sandra L. Harris
Pro-ed, 2001

Although there are many treatment programs for young children with autism, there is no single treatment method that works with every child who has autism. This important book provides a review of many different treatment methods that are provided in many different configurations, including public, private, and university settings. The authors of the chapters have described their programs along the same dimensions (e.g. structure, content, assessment, staffing, curriculum, integration, use of aversives, family involvement, and outcomes) so that you may consider the merits of each when considering a program in your local community. The book provides a good description of a wide variety of educational intervention programs for young children with autism and ASD.

Students with Autism: Characteristics and Instruction Programming
Jack Scott, Claudia Clark,
and Michael Brady
Singular Publishing Group, 2000

This book provides a comprehensive overview of the characteristics of autism and ASD. The book goes on to provide excellent coverage of strategies for instructing children with autism. The four in-depth chapters on instructional programming may be helpful to teachers of young children with autism, but this volume is not specifically focused on young children.

Play and Imagination in Children with Autism
Pamela J. Wolfberg
Teachers College Press, 1999

Play skills are an important part of growing up for all young children. In this important book, Dr. Wolfberg weaves together a description of the nature of autism and the development of play skills. The heart of the book is the case studies presented in part two of the book. These ethnographic portraits describe three young children with autism and the successful play-based interventions that work well with many young children who have autism and ASD. For teachers who are working with young children with autism, this book is an important and useful resource to build meaningful and successful play situations in the classroom.

Behavioral Intervention for Young Children with Autism: A Manual for Parents and Professionals
Catherine Maurice
Pro-ed, 1996

Catherine Maurice is the mother of two children who have autism. In this book she provides a unique and well-informed perspective on autism and ASD. More important for the everyday work of the teacher, Dr. Maurice has provided us with an in-depth analysis of applied behavior analysis. While there are many approaches to educational intervention with young children who have autism and ASD, it is well understood that a successful education program is well planned, fully implemented, and accurately monitored. Dr. Maurice provides a thoughtful and thorough analysis of applied behavioral analysis in this volume, and teachers of young children with autism and ASD will find it an informative and useful resource.

Activity Schedules for Children with Autism: Teaching Independent Behavior
Lynn E. McClannahan and
Patricia J. Krantz
Woodbine House, 1999

Sequences and schedules are important in our daily lives; carefully constructed sequences and schedules are an essential part of comprehensive educational interventions with young children who have autism and ASD. In this useful, little book, McClannahan and Krantz provide practical strategies for teachers to develop usable activity schedules as powerful teaching tools with young children who have autism and ASD.

If you have comments or questions about this article, please feel free to contact either of us: sdaley@csus.edu; Maurine Ballard-Rosa: maurinebr@csus.edu

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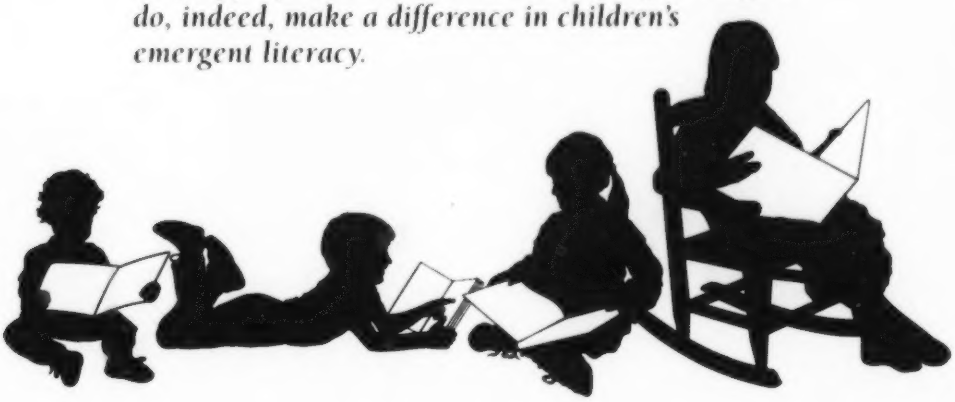

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